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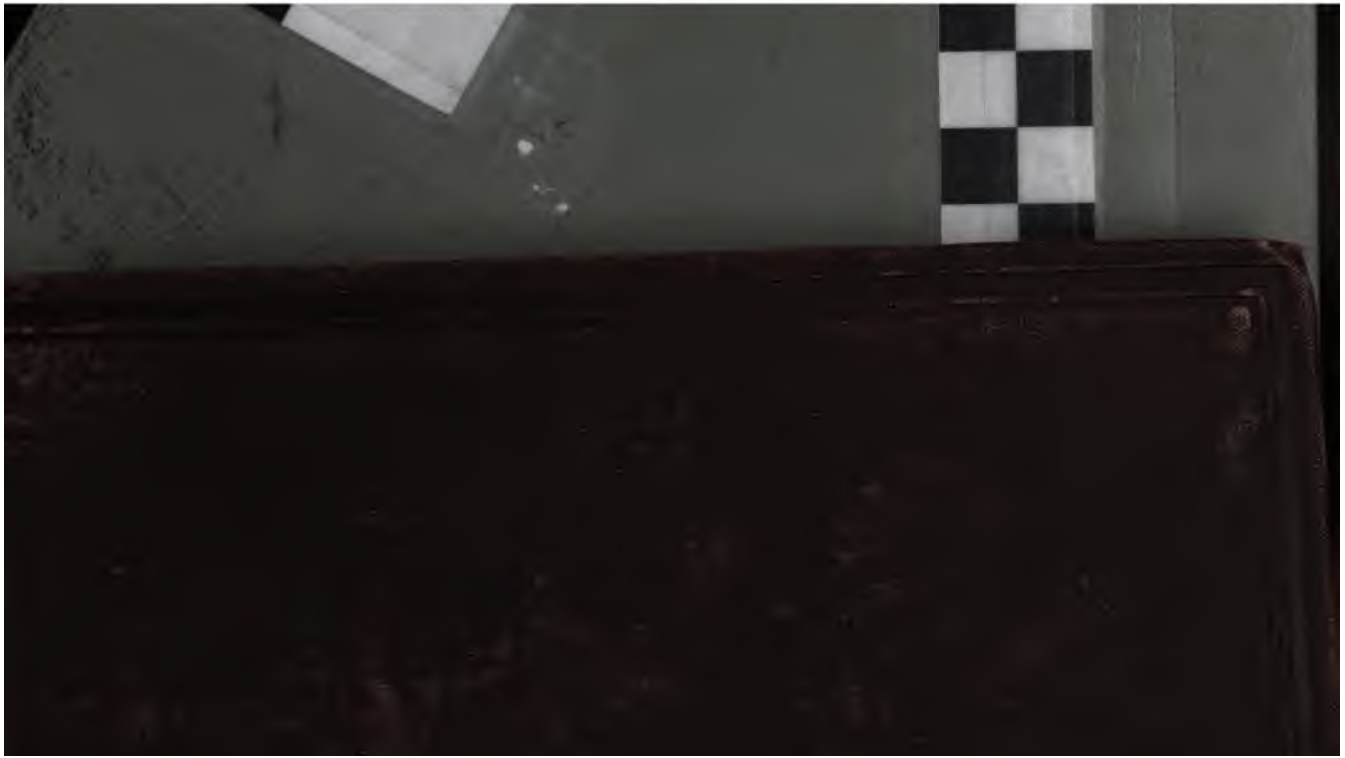

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MEDICAL STUDENTS OF THE PERIOD

"Good name in man and woman, dear my lord,
Is the immediate jewel of their souls."

—OTHELLO.

S. G. Simmons.

MEDICAL STUDENTS OF THE PERIOD

A FEW WORDS IN DEFENCE OF
THOSE MUCH MALIGNED PEOPLE, WITH DIGRESSIONS
ON VARIOUS TOPICS OF PUBLIC INTEREST
CONNECTED WITH MEDICAL SCIENCE

BY

R. TEMPLE WRIGHT, M.D.

LATE SCHOLAR OF KING'S COLLEGE, LONDON

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SURGEON EXTRAORDINARY TO THE QUEEN,

PROFESSOR OF SURGERY AT KING'S COLLEGE, LONDON,

SURGEON TO KING'S COLLEGE HOSPITAL,

ETC. ETC.

FROM WHOM THE AUTHOR,

IN COMMON WITH MANY GENERATIONS OF STUDENTS,

HAS RECEIVED MUCH KINDNESS,

THIS ATTEMPT AT A TRUE DESCRIPTION OF STUDENT LIFE

IS GRATEFULLY AND RESPECTFULLY DEDICATED

BY

ROBERT TEMPLE WRIGHT.

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MEDICAL STUDENTS.

CHAPTER I.

INTRODUCTORY.

Origin of this book—List of the London medical schools, with the number of students at each—Description of our course of training—How the profession has been improved by the exertions of its own members.

THE patients in King's College Hospital are having their dinner, and some clinical clerks are waiting in the students' room for the arrival of their respective physicians to see their patients. The table is covered with papers and periodicals, and the conversation has turned upon an article in the 'Cornhill Magazine.'

"Have you seen that account of Oxford life, Ned?" inquires a man whom we may call Dick.

"Yes; it is very amusing, I think. What a pity the editor does not send a contributor among *us*, for I am sure student life in London would furnish materials for a very interesting article."

"Yes," chimes in Walter; "and by giving a true account of us, he might remove the false impression of our habits made by such works as——"

But, reader, we must not mention the names of these books, for they are not unamusing, and would only confirm the belief which we wish you to relinquish. Suffice it to say, they looked at only one phase of student life, and the descriptions they gave of it were even more outrageous than Cuthbert Bede's sketch of Oxford manners and customs in the 'Adventures of Mr Verdant Green.' They were, no doubt, less exaggerated at the time of their publication than they appear now; but modern civilisation has improved the student of medicine as well as the rest of the population; so we agreed with Walter that it was high time for the old impression to be effaced.

"It has lasted so long," we observed, "because no one has ever tried to remove it. No one has ever defended us but Professor Kingsley, who said a good word for us in a sermon at the Chapel Royal, Whitehall, which he preached for the benefit of St George's Hospital in the summer of 1864."

"Indeed! what did he say about us?"

"He said we were noble and conscientious young men."

"Hear, hear! what for?" resounded on all sides.

"Because we have very disagreeable duties to perform, and in his opinion we perform them honestly."

"Three cheers for Kingsley!" said Walter; "I always liked his novels, and now I shall like them better than ever. We come up to town to attend the hospitals, and when lectures are over, there is no proctorial

system to watch over our morality, nothing to prevent our yielding to the temptations of London life but the *esprit de corps* of each medical school, yet I challenge any one to prove that we are at all more addicted to fast life than Oxford and Cambridge men."

"I am convinced," we replied, "that we should not in the least suffer by the comparison; and I have always thought it strange that if students are universally reprobates, the medical man should so constantly develope into that type of respectability, the family doctor. I wish somebody would, as you say, Ned, write in the 'Cornhill' a sketch of our pursuits, in order that the public might judge whether we really deserve all the reproach which has been heaped upon us in terms of such unmeasured invective."

"Why don't you do it yourself, Temple?"

"My dear fellow, that's quite out of the question; I could write nothing that would ever be received. Besides, how could a student find time?"

"Oh, nonsense; you couldn't manufacture greater rubbish than sometimes gets printed, so you might as well make the attempt. You need not try an ambitious style—merely suppose you are at home for the vacation, and your good people are asking you about your experience as a student. It would be no great effort of memory to remember their questions and your answers, so just put down what you would say as naturally as possible. Why, the labour of writing seems the chief difficulty, as far as I can see."

"But a good many of my answers would make people's flesh creep if they were printed 'raw,' may I say?"

"You can't help that; if they will ask such ques-

tions as they constantly do, they must take the consequences."

* * * * *

To defend a misjudged class seemed a worthy aspiration, and the idea thus planted has expanded by degrees into the present volume. Many a time when the study of a necessary but uncongenial subject has made him restless, sleep has been regained by the author after jotting down some incidents which occurred to him; and now that his examinations have all been passed, he has strung together these jottings in order to give the public a sketch of students' employment in the lecture-room, the dissecting-room, the laboratory, the hospital, and last, not least, during their leisure hours.

Perhaps it is as well to state, at the outset, that we can vouch for the truth of every statement, however extraordinary some may appear.

First of all, we must tell you where to find students —subjoined is a list of the eleven medical schools in London, their localities, and the average number of men at each: *—

* For this and other information our thanks are due to the secretaries and other gentlemen for their polite replies to our inquiries. It should be explained that though King's College is in the Strand, yet King's College Hospital is in Portugal Street, just behind the College of Surgeons in Lincoln's Inn Fields. At the London Hospital there are generally about 75 regular students, but there are a good many more occasional students, who are attracted by the facilities for obtaining dresserships and other hospital appointments. St Thomas's Hospital has at present a very small school attached, for it has now only 210 beds in a temporary building; but when the fine new edifice is erected opposite the Houses of Parliament it will contain 650 beds, and the number of students may be expected to increase in proportion.

Hospitals.	Localities.	Students.
Charing Cross,	King William Street, W.C.	40
Guy's,	St Thomas's Street, Borough, S.E.	300
King's College,	Strand, W.C.	170
London Hospital,	Mile End, E.C.	75
Middlesex,	Berners Street, W.	70
St Bartholomew's,	West Smithfield, E.C.	245
St George's,	Hyde Park Corner, S.W.	90
St Mary's,	Cambridge Place, Paddington, W.	75
St Thomas's,	Newington, Surrey, S.	60
University College,	Gower Street, St Pancras, W.C.	200
Westminster,	Broad Sanctuary, S.W.	30
	Total,	1355

Our course of training lasts four years, the first two of which are devoted to the science of medicine, the last two to its art and practice. In the former half of the course a man is almost lectured to death; for though the lectures begin at nine o'clock in the morning, they are not over till six o'clock in the evening, because the middle of the day is occupied with dissection and hospital practice.

The following are time-tables for the curriculum at King's College, which may be taken as a typical specimen, those of the other schools varying but slightly:—

First Year—Winter Session, October to March.

9	to	10	A.M.	Lecture on anatomy.
10	to	10.15	,,	Chapel.
10.15	to	11.15	,,	Lecture on chemistry.
11.15 A.M.	to	12.45	P.M.	Dissection.
12.45 P.M.	to	1	,,	Lunch.
1 ,,	to	3	,,	Hospital practice.
3 ,,	to	4	,,	Dissection again.
4 ,,	to	5	,,	Lecture on physiology.
5 ,,	to	6	,,	Tutor's class.

A second-year man must attend anatomy and physiology over again with the first-year men, but the other hours of his day are thus occupied :—

10.15 to 11.30 A.M.—Dissection.
11.30 A.M. to 12.45 P.M.—Dissection and demonstration on alternate days.
5 to 6 P.M.—Lecture on medicine and surgery on alternate days.

April is occupied by the Easter vacation, the whole of which can be enjoyed by first-year men; but second-year men's holidays are shortened by the examinations at the Colleges of Physicians and Surgeons.

First Year—Summer Session, May to July.

8 to 9, or 9 to 10 A.M., according to the lecturer's convenience each year—Lecture on Materia Medica.
10 to 10.15 A.M.—Chapel.
10.15 to 12 noon—Practical chemistry.
12 to 1 P.M.—Lecture on botany.
1 to 3 ,, Hospital practice.
3 to 4 ,, Lecture on comparative anatomy.

For a second-year man this is the variation :—

9 to 10 A.M.—Lecture on obstetric medicine.
12 to 3 P.M.—Hospital practice.
3 to 4 ,, Lecture on medical jurisprudence.

The long vacation consists of August and September, during which many of the advanced students take practices in the country for medical men who want a change. The Christmas vacation is very short, only from Christmas Eve to New Year's Day; but it cannot easily be made longer while the present defective system for the supply of bodies continues.

Third-year men have in the winter none but clinical lectures, which occur during hospital practice, and a second course of medicine and surgery from five to six o'clock on alternate days.

In the summer they have only clinical lectures, and fourth-year men have only these both in winter and summer; but they are occupied all day in the hospital "taking cases"—that is to say, taking notes of the patients' diseases in preparation for the visit of the physician or surgeon, who listens to the reading of the notes, corrects these, and prescribes for the patient. The prescriptions are then added to the notes, which are afterwards fairly copied into the "Case-Book;" so the students are always busy.

At the end of the fourth year they go up for the final examinations at the Colleges of Physicians and Surgeons, and receive diplomas, giving the titles of L.R.C.P. and M.R.C.S.—Licentiate of the Royal College of Physicians, and Member of the Royal College of Surgeons.

These examinations are far more severe now than they were formerly, and to this we must attribute the improvement in the character of medical students, for fewer men can enter the profession now; and these are necessarily better educated, as they are not allowed to begin attendance on professional lectures until they have passed a preliminary examination in the general subjects of a liberal education. This amelioration is due to the exertions of the profession itself, which in 1858 obtained from Parliament the "Medical Act."

One of the results of this Act was the establishment of the "Medical Council," which is, in fact, the medical parliament of the nation.

It consists of some nominees of the Crown, and of dele-

gates from every medical examining board in the kingdom, and meets in London for a fortnight every summer to regulate medical affairs.

Each member is paid ten guineas a-day from funds raised in the profession itself; and the Council has worked hard to raise the standard of education among students by making regulations which tend continually to increase the severity of the examinations; and it is satisfactory to hear examiners and lecturers on all sides declare that a corresponding improvement is observed every year in the men who enter the profession.

To insure the regularity of the class, a "marker" comes into the theatre at the beginning of every lecture, and marks the names of those who are present. The same precautions are observed at the hospital; and if the Dean be not satisfied with a student's attendance, he must go to the neglected lectures again next year, before he can receive the Dean's leave to apply for the lecturers' certificates, without which he is not admissible to any public examination.

Punctuality at early morning lectures is incompatible with dissipation on the previous evening; therefore, reader, if you see in the papers that "a medical student was brought before the magistrate at —— Police Court, charged with," &c., pay no attention to the report. On inquiry it will almost always be found that the defendant in such cases is no student at all, but some office-clerk who has had wit enough left to call himself a medical student, being aware of the general prejudice against us.

Now let us take the reader through the various scenes of our student life, beginning with the systematic lectures.

CHAPTER II.

OUR LECTURES.

Lecture-theatres—Lectures and lecturers—The "rising man"—The "good man"—The "stick"—"Regretting"—Discipline—Synopsis of lectures—Varieties of students—Hats—First-year men—Class examinations—Brilliant students—Student-critics.

THE lecture-theatres are all very much alike—large rooms with several tiers of seats, sometimes provided with desks to write at, sometimes not. Sometimes the rows of seats are curved like a horse-shoe, the lecturer standing at the open end. This we prefer, and it is the plan adopted in the best theatre we know—at the Royal School of Mines in Jermyn Street; you can hear Professor Tyndall in every part of it with the greatest distinctness. The lecturer stands at a table covered with specimens of various kinds, in accordance with the subject of his lecture, and behind him is a screen covered with large, ugly, water-colour drawings, called diagrams, to which he continually points with a wand something like a sexton's. Below the screen there is the inevitable "black-board," which, however, is in many places "board" no longer, for slate is much easier to draw upon, and to clean.

At the time for lecture there are a few men in the lowest rows, but many of them prefer to come in after the lecture is begun. They give a plausible enough reason for this—they declare their abhorrence of "vain repetitions;" they profess to be tired with the incessant, "In my last lecture, gentlemen, I explained," &c. &c., which always precedes a recapitulation of the said lecture before that of to-day begins. It is a nuisance occasionally, we must admit; for the *résumé* sometimes lasts half an hour, especially if it be on some pet theory of the worthy man's own invention. But lecturers are sometimes irregular, as well as students, for they "regret." Nothing is more annoying to a student than to leave something on which he is particularly engaged, because it is time for lecture, and to find, when he reaches the theatre, a notice posted on the door to the effect that "Dr So-and-so, having received a telegram suddenly summoning him to the country, regrets that he cannot meet his class to-day."

Of course, only the best men are appointed lecturers, and *how* are you to know who is a "best man," unless he has done something to distinguish himself? The favourite way of distinguishing one's self nowadays, and the quickest way to arrive at the "dignity of F.R.S.," seems to be by copying Ishmael, whose "hand was against every man, and every man's hand against him,"—in short, write a book, and flatly contradict everything that everybody else has ever said on the subject which you deign to take up; "repudiate the theory" of this man, "ignore the conclusions" of that, tell the other that "his views are really too absurd," pat some great don on the back, pronounce Liebig a "capital chemist," call Virchow an "enterprising physiologist,"

collect the most overwhelming statistics, and draw the most incomprehensible diagrams. If you put all this in print, it is quite enough to get you talked about at the great medical societies, mentioned with deference in the medical papers, and pointed at with wonderment whenever any stranger comes to your hospital.

A man *must* live; so anything to get your name up. You will scarcely believe us when we assure you that the eminent Dr Blankdash got up at a medical society one evening, and positively felt hurt because some one else doubted him when he affirmed "he was the first to discover cholera—and to *communicate it* to the public!"

Ah! it is much better in your own lecture-theatre; there you are as safe as a clergyman in his pulpit,—you can laud yourself, and pound your adversaries to your heart's content, and the more animated you are, the more your students' interest will be aroused; and as you come to the climax, the "Q.E.D.," you blush with pleasure at the sympathising applause which greets your reddening ears.

This is, of course, the *young* lecturer—the rising man—with an unexceptionable degree, with his name on an unexceptionable brass-plate on the door of a house in the most unexceptionable neighbourhood, but with, as yet, not patients enough to turn his ardour from theory to practice. By-and-by there will be a change; at present you listen to him with interest none the less for the lurking suspicion that he does not believe all he says; you take notes of a few salient points in his argument, and—quietly read up the standard works for your examinations.

By-and-by, when he has got a practice, his scientific ardour is moderated by experience: he has settled down

into the "good man," instead of being the "rising man," the theorist; and you may, perhaps, hear him begin a lecture with—"Twenty years ago, gentlemen, I should have given you very different information on to-day's subject from that which I now believe to be the truth."

At this stage his lectures are often taken down almost word for word, and treasured up carefully by his audience; but some men are discouraged in their efforts to rise, they grow careless of doing themselves justice, and become cut-and-dry in their style of delivery.

More than one such humdrum lecturer will occur to the recollection of medical readers, who will confirm the assertion that such men have their reward by seeing most, if not all, of their students quietly go to sleep, without even pretending to listen.

Discipline is, of course, less strict than at Oxford or Cambridge, so that some lecturers find the greatest difficulty in keeping order while they go on prosing day after day; but there must be dull days now and then with even the best of lecturers, and it is amusing to see how differently they are affected by symptoms of impatience among the students. Some men at once order the disturber out of the theatre, and maintain a dead silence till the sound of his retreating footsteps has ceased; others make frantic appeals to the honour of the class in the most piteous eloquence; many restore order at once by a timely joke, such as asking a prominent talker a question on the subject just described; while a few can tame the most lawless spirits by a frown of portentous significance.

As for the students, their attitudes and behaviour are various: some few in the first row seem to devour every

word that falls from the lecturer's lips ; some of them can even write as fast as a reporter, but no one can read their notes except themselves. Others, more wisely, do not make their hands ache by such labour, but merely note down the principal points ; whilst others take no notes at all.

Some lecturers have lately adopted the plan of writing out a synopsis or epitome of the day's lecture on a board, and this is very useful, for their chief object is merely to guide your private reading—there is no time to tell you everything contained in the books.

We have before us a syllabus given us by a friend in Edinburgh ; it is a printed synopsis of the *whole course* on Natural History, delivered there annually by Professor Allman. If the "General Medical Council" were to issue a similar syllabus for *every science* a student has to take up, specifying "pass subjects" and "honour subjects," it would be a great boon to students, and would keep lecturers from wandering.

The principal aim of some students seems to be the preservation of their hats, and it is interesting to observe that the further the session is advanced, the further these men recede from the lecturer, till at last they have the top row all to themselves ; this being the widest in a horse-shoe theatre, they have plenty of room for their party of two or three to loll about, without danger to their glossy hats, and without any fear of having their exquisite coat-tails trodden upon by some clumsy being behind, who may happen to lean over to speak to them. Hats certainly are a nuisance, —they are always getting in the way and falling down. There ought to be a set of pegs for them in every room, and the said pegs, if we had our way, should be

ously been made; philosophers had overlooked it, and it was long unexplained, merely standing recorded as "Mr Colt's observation." Mr Colt was so much disgusted with the uncertainties in medical science, and the difficulty of deciding who was right when doctors disagreed, that he left the profession and took up law, the "uncertainty" of which is, by common consent, "glorious."

Ah! Mr Colt, you have many to sympathise with you; many a man would go in for law if he had his time over again, and knew what the study of medicine means. It falls to the lot of few men to make original discoveries such as his, but a short time ago there was a more brilliant student than even Mr Colt. Dr J. B. Pettigrew, then an Edinburgh student in his third year, was actually appointed "Croonian Lecturer" at the Royal Society before he had taken his degree!

So he lectured to all those old dons,—that is, he read before them his researches into the "Nerves of the Heart," amid the greatest applause; his paper is printed in the 'Philosophical Transactions,' and you may see some of the preparations he made to illustrate it in the museum of the College of Surgeons; and when you look at them you will not wonder that old professors of anatomy declare "they have never seen such dissections in their lives."

But though such triumphs as these do not occur every day, it is by no means uncommon to hear a lecture begun in some such way as this:—"Gentlemen, at the close of my last lecture, one of your number came to me and criticised some of my remarks; he said," &c. &c. The worthy lecturer will observe he

likes such criticism,—it shows his pupils take an interest in what he says, and he delights in the spirit of independent inquiry. He will then explain what he meant more fully, or tell us that he gave his own views, but that others held a different opinion, which he relates, and then leaves us to take which we prefer.

CHAPTER III.

THE DISSECTING-ROOM.

How dissecting affects different men—Arrangement of the dissecting-room—How bodies are obtained and prepared for dissection — "Ellis"—"Heath" — "Parts"— Dissection-wounds—The tyro's expectations—"Connective tissue"—Worshippers of Juggernaut—Professor Virchow and Count Bismark—Dr Grant and Professor Schwann—Appetite after dissecting—Smoking after dissecting—What becomes of the bodies—The dissecting-room porter—How he injects bodies.

LECTURES are not often very attractive, but perhaps you will be surprised to hear that "chamber of horrors," the dissecting-room, has the most powerful attraction for some students. Some men, indeed, enter the profession chiefly to have the opportunity of hacking away, and seeing what wonderful mechanism is concealed beneath the skin; they delight in dissections, remain at them all day, do other men's "parts" for them, and can talk nothing but anatomy.

Other students, as is not at all surprising, hate "a body" worse than poison, get through their "parts" as fast as they can, and give a deep sigh of relief when they have passed their last examination, to think that "their salvation no longer depends on their anatomy."

Dissecting-rooms are all more or less alike; but we think University College has the finest—it is so lofty and spacious. The floor is, or should be, of stone, covered with sawdust, to prevent your feet being too cold; the light ought to come from skylights in the ceiling, and from high windows; the remainder of the ceiling and walls are whitewashed, the latter being adorned with various diagrams, and tables of weights, measurements, and so forth.

A complete jointed skeleton hangs in a corner, and various loose bones are to be found in the closets. The bodies are arranged on narrow tables, one row on each side of the room, and there are eight men to each body.

People always ask where we get the bodies from, now that the "resurrectionists" can no longer ply their unhallowed calling of robbing the graveyards. Formerly, murderers were handed over to us after execution, but the "Anatomy Act" of 1832 put a stop to this, in order to make dissection "respectable;" so now the supply of bodies is very scanty, as might be expected, for we are allowed to have only those of people who are deserted by all their friends, or at least whose friends cannot be found, but *not* of patients who die in the hospital, which is the common impression. Notice of such a body is sent to the Inspector of Anatomy, 13 York Chambers, Adelphi, and he orders it to be taken to Guy's Hospital, or any other whose turn comes next. The dissecting-room porter receives it with the warrant for dissection, which the anatomy lecturer files. The porter injects the arteries of the body, first with chloride of zinc solution, or arsenic solution, or some other antiseptic, and next day with "injection," which

is a hot semi-solid compound of vermilion and size. This "sets" in the course of the day, and the body is next morning placed on the table, with every hair shaved from the head and face. Thus, you see, we do not get our bodies till they have been dead several days, so it is a blessing the winter session lasts only from October to March, for the odour would be quite intolerable, if dissecting were prolonged into April.

At the beginning of each term of the winter session, in October and in January, you "put down your name for two parts"—that is, you give the lecturer a sovereign, or a guinea (for the funeral expenses), and tell him what you wish to have. Very few men do more than four parts in each winter, for you have often to wait some weeks before your turn comes for "the next leg," and so on.

People cannot understand why you pay for your parts as you want them. We suppose you do not pay for them at the same time that you pay your other fees, because you may be too ill to dissect all the parts you have put down your name for; so you can sell them to some one else, and thus keep your little accounts straight, without bothering the fee-taker to make alterations. When a man gets knocked up, and cannot come into the dissecting-room, he is generally ordered a walk instead of dissecting, and then he will afterwards "read up" the part he has lost on a body belonging to some one else.

Well, we will suppose you find "you've got a part in," so you go to the dissecting-room and equip yourself for work. You put on the oldest and shabbiest coat you have—a cap, generally an old cricket-cap of some vivid colour—and further protect your legs and

arms with a checked apron and Macintosh sleeves. Knowing men put soap under their nails, and slightly grease their hands when they have a "part" worse than usual; and every one is always very careful to put a piece of plaster over any scratch he may have, for a dead body is poisonous, especially when it is first brought in. At every medical school a certain number of men are knocked up every year; and statistics prove that in London a certain number die annually of "dissecting-wounds or necusia," or some other disease, which finds them debilitated by dissections.

You take your dissecting-case out of the pocket of your apron, and ascertain whether its contents are in working trim. You should have six knives, a pair of forceps with an easy spring, a set of hooks, a blowpipe, with a wire to clean it out, and two pairs of scissors, one large, one small, both of which should cut to the point, but not be sharp-pointed. Satisfied with their sharpness, you take them out, and open your "Ellis," to see what to do. "Ellis" is Ellis's 'Demonstrations of Anatomy,' a book which it is indispensable to read if you hope to pass—and precious tough reading it is, we can tell you. Mr Heath of Westminster has brought out a much nicer manual, full of diagrams and answers to "cram" questions; we only wish it had been published in our first year.

Let us hope he will do something also for advanced students, who are reading for the University of London; they stand much in need of a dissecting-book, which should combine his own clearness and terseness with the minuteness of Ellis, and the accuracy of Gray and Cruveilhier.

But perhaps you would like to know what a "part"

is. Well, the body is divided, according to Ellis, into eight parts, four on each side: two "lower extremities," the thighs, legs, and feet; two "upper extremities," the shoulder-blades, collar-bones, arms, and hands; two "head-and-necks," that is to say, the two sides of the head, neck, and chest; and lastly, and worst of all, two "abdomens," or the two sides of that region of the *torso*, to borrow a term from the artists, which is below the diaphragm or midriff.

At first, it is very awkward, with six or eight men close together; but when we have done the "superficial dissection" you dismember the body, and carry off your "part" to your favourite table, lean your "Ellis" against a block, and read and pick, and pick and read, till you have got down to the ligaments; but you will not get so far unless you put spirit on it, and wrap it up every day when you leave off dissecting. "Ellis" tells you how to dissect ligaments as well as other structures, but by the time you reach them you are so disgusted, that not one man in fifty ever looks at ligaments, except in dry specimens and diagrams.

The tyro in dissection, of course, spoils his first part; eager to begin, he hacks away, expecting to see the arteries coming out red, the veins blue, the nerves white, and the lymphatics dotted or "beaded," just as they are in the books. No such thing occurs; you now and then get a body where the arteries are not over-injected; but the veins never look blue, unless they are very large ones, and the blood is sometimes driven out of *them* even; indeed, you often find the greatest difficulty in telling veins from nerves, till you are accustomed to distinguish between them; and as for lymphatic glands,

why, you must not expect to see any, except the very largest specimens!

"Where are all the rest?" you ask. "My dear fellow, you have cut them away; they are in here, in this stuff, which you probably call *gum*, if you use no coarser term—this structure in which they are embedded! Don't you remember, Quain says they are surrounded with an atmosphere of fat and areolar tissue?"

By the by, in the new edition of "Quain" *areolar* tissue is called *connective* tissue now, in compliment to Professor Virchow, the eminent physiologist of Berlin, who has written so much about it under that new name.

"Connective tissue" is an elastic tissue, which serves to bind down the skin to the parts beneath, thus making our "suit of buff" fit us far better than clothes made by the best tailor or dressmaker in the world; it also surrounds muscles, vessels, and viscera, and binds them together. Hindoos take advantage of its elasticity to delude heathen fanatics. Just before the feast of Juggernaut, his devotees have their backs manipulated in some way, and the connective tissue is thus very much stretched; large iron hooks are then thrust through the skin, and on these they swing several hours, suspended from high poles, to the admiration of less ascetic worshippers. However, they do not suffer much by this process; for if you ask any "old Indian" who has been an indigo-planter, he will tell you they go to work again the next day, just as if nothing had happened.

You may imagine the horror which seized all right-minded students, at hearing that Virchow was the Prussian M.P. who had been challenged by Count Bismark for talking about Liberalism, and such things, which appeared foreign to his usual vocation!

A friend of ours first saw Virchow in bed. He was going the round of the Continental hospitals, and on reaching Paris he found Virchow was staying there, so he called on the great *savant*. Virchow was busy, and asked him to come the next morning before breakfast. He went, but the Professor was in bed with a bad headache, yet he received him in his bedroom, and chatted pleasantly on physiology.

But Dr Grant, the great palæontological anatomist, formed an acquaintance still more strangely with Schwann, the originator of the "cell theory," who gives his name to the "white substance of Schwann" in the nerves. He told a friend he had met Schwann while he was abroad.

"Oh, indeed! what sort of looking man is he?"

"Well," said the Doctor, in his usual mild deliberate manner, "I can scarcely tell you, for I have never seen him with his clothes on."

"*Never seen him with his clothes on!* why, how?"

It turned out that these two eminent men of science had met at a public bath, and had discussed "axis-cylinders," and "double-contoured nerve-fibres," &c., while paddling in the water, but, with that *mauvaise honte* to which philosophers are sometimes liable, had not become further intimate.

However, if Virchow left *his* subject, we are leaving *ours*, so let us return to our odoriferous "part." You will find that the more you stick to it, the less you will dislike it; but many men cannot bear to touch it if they have once put it away for the day, so they prefer to dissect sometimes four hours straight off, sooner than take two hours in the morning, and two in the afternoon.

Dissecting gives you a tremendous appetite, though

you would not think so. But there is this peculiarity about it: you may feel ravenous after a morning's dissection—in fact, you may sometimes put away your things rather earlier than usual, because you feel so hungry; yet when you reach the chop-house, the vapour from the hot viands takes all your appetite away, and you can scarcely eat; if you make the attempt, the meat seems to taste of the body you were dissecting, and you feel utterly wretched. The only remedy we know for removing this distressing sensation is tobacco. No doubt this accounts for medical students being such inveterate smokers, but most of them smoke far more than is necessary. A few whiffs are quite enough to set you right, and we always found a small cigarette was the most convenient "smokable."

"Come and have a pipe," is a very kind and friendly invitation, especially if the inviter stands tobacco; but we always found "a pipe" was best expressed by the figure eight lying down on its side, like this ∞, you see, which every disciple of Colenso knows to be an "algebraical symbol, signifying infinity." But a cigarette is finished in a few minutes, and as it leads to no comparison in the degrees of colouring exhibited by rival meerschaums, there is no loss of time.

We are often asked what we do with the remains, after dissecting the body. They all receive decent burial in one or other of the metropolitan cemeteries, and the burial-service is read over them as decorously as if they had a long procession of friends following them.

It is dreadful to think there are people enough deserted by their friends to supply all the medical schools in the kingdom, but still they bear a very very small proportion to the entire population; and if it were not for

them, how could doctors be properly taught? And if the medical schools did not bury them, the Unions would have to bury them; so you see medical students are actually of some service in diminishing, however slightly, the parish rates—for that is the purpose to which the money they pay for their parts is appropriated.

The dissecting-room porter is always a favourite with the students. Besides keeping the room tidy, he injects the bodies, and puts up the diagrams for lecture, altogether making himself so useful that the lecturer sometimes can scarcely venture to chaff him if he puts up a diagram topsy-turvy.

He provides the students with aprons, sleeves, sponges, and, if required, with dissecting-cases and bones; in fact, he generally calls himself *Dealer in Osteology!* Men like to go and have a pipe in his room and see him inject, when lazy or tired of dissecting. Some porters inject very well, some do it so badly that the arteries are swelled and distorted like varicose veins, so that a good injector is appreciated by the students, and comes in for sundry tips, which, with his Christmas-box, make his disgusting office somewhat bearable.

He injects bodies through the aorta (the largest artery in the body); he gets at this in a curious way, which it is necessary to adopt, or he would spoil the dissection of the chest. An incision about four inches long is made in the skin, just over the breast-bone; this is sawn through, and the points of a pair of forceps inserted, of the same construction as a pair of scissors, only not sharp; the blades are separated by a screw, and through the opening in the bone thus dilated you see, after a little dissection, the beginning of the aorta as it leaves

the heart; the injecting-syringe then forces the warm size into every artery of the system, in the same manner as the heart propels the blood, often with a precision in the small blood-vessels that is quite surprising. Bodies are sometimes injected through the common carotid or the common femoral artery, but this plan does not give such good injections *on both sides* as injecting by the aorta.

CHAPTER IV.

DISSECTING-ROOM OFFICIALS—CURIOSITIES IN ANATOMY.

The "demonstrator of anatomy"—Distinguish him from the lecturer on anatomy — "Assistant-demonstrators" — "Prosectors" — Impossible to learn anatomy without dissecting — List of structures — Aliases — Instances of nature's mechanics — Pianoforte muscles — Music-stools —How to play gracefully — Why the ring-finger is so weak—The great "hippopotamus" question—"Ape *v.* angel" — BODFI — The "sea-horse" — "Hippocampus minor" — How to make a model of the brain—What the cerebellum is not.

THE dissecting-room is theoretically under the charge of the anatomy lecturer; practically, he never comes near it unless he wants to speak to some one there. So the demonstrator of anatomy is the presiding genius of practical anatomy, who shows you how to get out your "lenticular ganglion," or your "anastomoses" round the elbow-joint, or anything else requiring nicety. The lecturer meddles with nothing but "descriptive anatomy," as it is called. He describes first the bones, then the ligaments, then the muscles, then the blood-vessels, then the nerves, and then the organs with special functions. In describing the vessels and nerves, he just tells you where they come

from, where they go, what their branches are, and so on.

The demonstrator instructs you in practical cutting, and gives a lecture every day, or every other day, on regional anatomy; that is to say, he takes a certain region and describes all the structures you find in it, pointing out the relation they bear to one another. For instance, if he were demonstrating the arm, he would point out that, "at the lower border of the tendon of the teres major, the median nerve is external to the brachial artery; but at the insertion of the coraco-brachialis it crosses in front of the artery, and at the elbow the nerve lies internal to the artery." As he says this he points to the artery, so that you see it is all true.

The great difficulty in anatomy is to recollect these relations of the various structures to one another so precisely that you can write down from memory an account of any region in the body when the question is set at an examination.

From the sentence just quoted you see what is meant by the term "relations," and you will not fall into the mistake of a freshman who thought the radial and ulnar arteries were *daughters* of the brachial, because he heard it called their "parent trunk."

When you hear of the nerve being first "external" and then "internal" to the artery, you must not suppose the nerve gets into the tube of the artery; no, these terms have a special meaning in anatomy.

Every part of the body is referred to the "middle line," an imaginary plane which passes perpendicularly through it, and objects nearer than others to this line are said to be internal to them. The great toe is *inter-*

nal to the second toe, and the second toe is *external* to the great toe.

But this rule is not without some striking exceptions; for instance, the internal carotid artery is external to the external carotid, and is called *internal* because it goes to the inside of the head, while the *external* carotid goes to the face.

This is only one example of the fact that the nomenclature of anatomy is a mass of confusion, and many modern anatomists are very anxious to have it completely rewritten, but that sweeping reform would require an international conference to be of any value.

The demonstrator is assisted by two or three "assistant-demonstrators," who are not official, only amateurs. They are generally students in their third or fourth year, who are going in for the examination for the Fellowship of the College of Surgeons, and keep up their anatomy by helping younger students out of their difficulties.

And very kind they are, too. Like many another tyro, we could make nothing out of the muscles of the back till an expert young assistant-demonstrator came and helped us. At some places we hear they are disliked, because they put down smoking too rigidly in the demonstrator's absence. Of course smoking cannot be allowed while dissecting, for it is fatal to work; but, as far as we have seen, a kind man can prevent it very easily. When he smells it, he has nothing to do but to say, with a smile, "Come now, old fellow, you know the demonstrator would jaw *me* if he came in and smelt tobacco; and you wouldn't like that, would you?" Of course you wouldn't, unless you are a regular brute, so you put out your pipe at once, and generally remark with *naïveté*, "All right, old fellow;

I didn't know you were there;" and so the matter ends, if the assistant-demonstrator is as great a favourite as he ought to be.

The other satellites to the lecturer on anatomy are the "prosectors." They are usually second or third year men who like dissection, can do it with neatness and rapidity, and who thus prepare themselves for the post of assistant-demonstrator. Their duty is to dissect the subject for the next day's lecture; and if there are four of them it is very easy work, as they go down to their little room in couples to suit each other's convenience, but when there are only two, it is a nuisance, as they have to remain so long over the body. Men like to be prosectors, for, besides getting their "parts" for nothing, they can always plead "prosecting" as an excuse for being late for any lecture, and they stand a chance of being appointed prosectors to the College of Surgeons. Several examinations in anatomy are held there every year, and the various medical schools supply men to dissect the subjects for the examiners; the College gives them lunch, and a certificate, which is considered a good thing to have when you ask for your testimonials after passing.

Formerly lecturers on anatomy used to acknowledge the services of their assistant-demonstrators and prosectors by presenting each of them with a dissecting-case, ornamented with a silver plate commemorating their zeal; but we are sorry to say this excellent custom has died out in many places.

How did our ancestors learn anatomy before dissection became general? They simply did *not* learn it, for without ocular demonstration none but the most wonderful memory could master such a task as learning

and recollecting all about the human frame in its several parts. To quote the graphic expression of a very able and popular demonstrator, "You cannot expect to learn the anatomy of the human body until you have smeared your hands and face all over with it!" Leaving quite out of sight the question of the "relation" of the different structures to one another, who would not recoil from the attempt to "get up" two hundred bones, fifty joints, besides the articulations in the skull and face, five hundred muscles, six hundred and fifty arteries, the same number of veins, and two hundred and thirty nerves and "plexuses," with the nerve-centre —the brain—quite a study by itself?*

It is a blessing to think these numbers are reduced by half owing to the symmetrical arrangement of the body, but nevertheless a first-year man finds a deal of trouble arising from the fact that so many things have various names—indeed, several structures have as many *aliases* as a swell-mobsman.

One or two of these may be mentioned, as they lead the way to observe structures in which the general public may take some interest.

A first-year man is puzzled to hear an old practitioner mention the "muscle of Dubois," or De le Boe, in old French. He has no idea it is the same as the

* The medical reader will not, we hope, find fault with this enumeration. The named muscles, vessels, and nerves, vary so much in different authors, that we give merely round numbers, which may be verified by glancing at the index to Gray's 'Anatomy.' Please to bear in mind, however, that we call all the vessels in a group separate arteries—*e. g.*, the perforating arteries of the thigh we call three, not one; and in the bones we include the hyoid bone, and also the knee-pan, but not the other sesamoid bones, nor the small bones of the ear, nor yet the teeth of course, which are not bones, but only a sort of claws.

"massa carnea Jacobi Sylvii," and still less suspects they are both the same muscle as that old friend of his the "flexor accessorius" in the sole of the foot, whose two heads at the heel *wouldn't* come out nice and clean as they are in the books.

This "flexor accessorius" is an instance of nature's mechanics. It is an "accessory flexor" muscle to the "long bender of the toes" (*flexor longus digitorum*). The tendon of the latter comes down from the leg, winds round the inner ankle, and at the middle of the sole divides into four smaller tendons to go to the four smaller toes. If left to itself it would draw them all to the inner side of the foot, but as the "accessorius" is inserted into it just at its point of division, this excessive action is prevented.

But the "accessorius" is not the only accessory muscle to the *flexor longus digitorum;* from its four small tendons four small muscles arise, which are called "lumbricales"—a name they richly deserve, for they look very like "earth-worms,"—in Latin, *lumbrici.*

These curious little muscles, though arising in the sole, are inserted upon the *back* of the toes, into what is called their "dorsal aponeurosis," or investing sheath, and their action is very curious; but as we coop up our feet in tight boots we cannot see how they act in the foot, so we must look at them in the hand instead.

In the palm of the hand the "deep bender of the fingers" (*flexor profundus digitorum*) has its four tendons supplied with *lumbricales* in the same manner as in the foot. They arise from it in the palm, and twist round to the back of the fingers to be inserted into

their investing sheath, and now we can see their action to perfection.

What do young pianists always find so much difficulty in doing to the satisfaction of their instructors, especially mamma, who is even more particular about it than the music-master?

What tyro at the pianoforte does not recollect with a shudder day after day, as he or she sat down to practise those atrocious "scales," that before the hour was half over mamma would be coming in to see that those poor weary little fingers were not "all hooked up like claws"?

"Amelia! how *can* you? . . . I declare you will have your fingers grow as crooked as the parrot's claws! . . . And your wrists, too, are down below the keys, . . . and your whole arm goes working up and down like a steam-engine!"

Then poor Amelia turns very red, and endeavours to do better, but naturally does worse. Mamma comes and tries to hold the arm in the proper position; worse and worse, of course. A regular scolding follows, a flood of tears is the result, and no more music that day.

The poor little girl goes out for a walk, but it is spoiled for her by the thought of that horrid "practising" still hanging over her; and no wonder she confides to her sympathising younger sister, "Lucy, I *hate* music." No wonder that she leaves off playing on the piano altogether as soon as she is married.

All this misery, all this loss of time and temper, because certain little muscles have not acted properly. Now, let us observe what their actions are, and how we may best allow them free play.

These *lumbricales* arise from the *palm* of the hand, and from the *deep flexor* muscle's tendon;

therefore you would expect *them* to be *flexors* too; but *they* are inserted into the investing *sheath* on the *back* of the fingers, into which the *extensor* muscle's tendon is also inserted;

therefore *they* are *extensor* muscles;

and while the *deep flexor bends all* the joints of the fingers, the *lumbricales* modify this action by *extending the last* joint;

therefore the *combined action* of these muscles produces that *graceful curve* of the fingers which mamma hates to see represented by an "ugly crooked finger." But we have not yet quite done with the position of the hands at the piano.

Because the investing sheath of the fingers receives the *common extensor* tendon, from the back of the fore-arm, as well as the *lumbricales* from the palm of the hand,

therefore the fingers can be most easily extended when the fore-arm, wrist, and back of the hand are all in the same plane.

Insure that this can be done comfortably, and there will be no working of the whole arm from the shoulder. We do not speak from our own experience, for we cannot play on the piano, or on anything else, we are sorry to say—but this was a theory we had on the subject; and, at the risk of being voted a bore, we asked the best pianists of our acquaintance what position they found the easiest for their hands. All (and here let us thank them for their courtesy) declared in favour of that which we mention.

But *how can* this "be done comfortably" unless the

poor child sit comfortably? and how can it sit comfortably while it is always perched up, "like Patience on a monument smiling at grief," on one of those abominable music-stools, which creak so horribly, and are screwed up to the required height for each child?

We are sure most children would rather sit on a steady monument than be stuck up on a rickety stool, with their poor little legs dangling in the air, and their poor little spines getting distorted in their frantic attempts to balance themselves. To have one stool adapted by a screw to all heights and all weights seems no less absurd than it would be to have one saddle adapted by screws to all horses and all riders. Give each child a steady comfortable chair with a back and a foot-rest, and all nervousness, which causes the awkwardness in holding the hand, will soon be overcome.

Cane chairs are cheap—any chairs would cost far less than the doctor's fees for curing curvature of the spine.

But before leaving the piano we had better explain why the ring-finger is so much longer about getting into training than any of the others.

We have already mentioned the "common extensor" of the fingers; well, this muscle gives off four tendons to the backs of the four fingers (the thumb has special extensors of its own), and the tendon of the ring-finger is tied down by little slips to the tendons which go to the middle and little fingers. Poor ring-finger! no wonder it acts with difficulty; it is like Lancelot Gobbo, pulled one way by the fiend, and the other by his conscience.

While dissecting our first arms with a friend, we were both so much annoyed at discovering this arrange-

ment, that we agreed, if ever we learned to play on the piano, we would perform "tenotomy" on each other —*i.e.*, cut these two little tendinous slips.

The brain abounds in parts which have many aliases; but we will mention only one which we can use as a peg to hang some remarks on, as we hope they may be of some interest to the reading public.

A favourite "cram" question is to ask you all about the lateral ventricles—the large cavities in the *cerebrum* or great brain. What forms their roof? What do we find in their floor? With what do they communicate? What dissection do you make to show their communications? &c. &c.

It is very difficult to cram this up, but that is not what we want to tell you so much as some of their contents; for it is in them we find the "hippocampus major," about which so much fuss was made a short time ago among scientific men.

Some of those who held with Mr Darwin that man was a highly-educated or *re*generate ape, declared there was no difference between the two, except that man has a "hippocampus major" in his brain, while the ape has none.

This is the view which Professor Kingsley has so amusingly laughed at in the 'Water Babies,' when he tells his readers it is no matter how beautiful, or wise, or witty they may be, they are still apes after all if they have no "*hippopotamus* major" in their brain.

For the comfort of those who hold with Mr Disraeli that man is a *de*generate angel, we may remark, before going further, that they may make themselves quite easy. They need not be the least afraid of any old gorilla coming up to them some day and saying, "Am not I a man

and a brother?" or rather, "Art not thou an ape and a brother?" for there are an immense number of differences between men and monkeys. If you don't believe us, just read what Professor Huxley and others have written about the "anthropoid apes," and you will soon find the subject fills a much larger book than this.

"What *is* a 'hippopotamus major,' or a 'hippocampus major'?" you inquire. It is a name given to a curve following the course of the "middle horn" of the lateral ventricle, and it was a bother to students long before the ape *v.* angel controversy was heard of; for the direction of the curve is backwards, outwards, downwards, forwards, inwards. Try to say that now, and we are sure you won't be able to recollect the right order unless you observe, as we students do, that the initial letters make the word BODFI!

Triumph of mind over matter, isn't it? Defeat of that odious tyrant of an examiner who thought he would pluck you for not knowing it!

"Well, if it is a *curve*, why is it called *hippocampus*? What does it mean?"

You may well ask, reader. Let us explain:—

It *doesn't* mean a "horse-pasture;" it does not come from ἵππος, a horse, and *campus*, a field, though it would not be at all surprising if it did, for anatomists have coined far worse hybrid words than that—men of science, like the Emperor Sigismund, are above grammar, and that sort of thing, you know. It comes from ἵππος, a horse, and καμπή, a bend; but still we seem almost as far from its derivation as ever—a "horse-bend," what can it mean?

There is a very curious little fish found in the Atlantic and Mediterranean which is popularly called the

"sea-horse," and by Cuvier "Hippocampus brevirostris." It looks as if it had been made by slicing off the head of a shrimp, and supplying its place with the head of a knight in a set of chessmen; the horse's head thus accounts for the *hippo* in its name, and the curious bend of the body brings in the καμπή, modified into *campus*.

Specimens of it are in most museums, and the "horsiness" of its head, and the peculiarity of its curve, are brought out more distinctly when it is dried. Pictures of it are in most books on natural history—say Maunder's Treasury, for an example. It is quite a heraldic-looking little monster, and is, in fact, very like the supporters of the arms of Cambridge—the borough, not the university.

Well the "hippocampus major" has no "horsy" head, but its curve was considered something like that of the sea-horse's body; and by this roundabout way this ridiculous name is conferred on a part of the brain. It would be much better if it were always spoken of by its other name, "cornu ammonis," for it really is something like a "ram's horn."

But if we have "hippocampus major," we naturally ask after "hippocampus minor:" if we hear of Pitt senior, the Earl of Chatham, we naturally think of Pitt junior, the great commoner.

The "hippocampus minor," or "calcar avis," the "bird's spur" (which it does not in the least resemble), is not far off. It lies in the "posterior horn" of the lateral ventricle, just as the "hippocampus major" lies in the "middle horn," which describes such a remarkable curve.

Let us see if we can explain how all these queer

things are formed. Take a dinner-napkin, simply folded, not made into a fan, or a mitre, or any other of those wonderful things we see at hotels, but simply folded, if you please. Roll each end of it towards the other till they meet in the middle, then cram the whole into a tumbler, and you will have a good idea of the manner in which the two ends of the *cerebrum*, or great brain, are rolled into its two *hemispheres*, and packed in the *cranium*, the skull.

Now examine our model: we see it is crumpled by the pressure into all sorts of elevations and depressions —in the same way the brain is crumpled, only the elevations are called *convolutions*, and the depressions *fissures*.

Our napkin, though rolled up, has a cavity not quite obliterated left in each *hemisphere:* similarly is the lateral ventricle, with its three divisions or *horns*— anterior, middle, and posterior—left in each *hemisphere* of the brain; therefore, if we pass a pin through the bottom of the *fissures*, we may expect to reach the lateral ventricle itself, may we not?

Let us try. Hallo! We have transfixed our friend hippocampus major!

To be sure we have: Hippocampus major is an elevation inside the brain, but a depression outside.

The brain is not crumpled anyhow, as our napkin was. Nature crumples it always in the same way, and the most important elevations or *convolutions* have received special names, so likewise have the most important depressions or *fissures*.

Our business at present is with the latter: we pass a pin through the bottom of the *dentate fissure*, and we find it perforates *hippocampus major*, coming up in the *middle* horn of the lateral ventricle.

In the same manner the pin passes through the *calcarine fissure*, perforates *hippocampus minor*, and emerges in the *posterior* horn of the lateral ventricle.

Again, we stick a pin into the *collateral fissure*, which is between the last two, and we find it comes up through the *eminentia collateralis*, a small eminence inside, just between the two hippocampi.

The *posterior horn* of the lateral ventricle had a good deal of fuss made about it at one time, because it was thought that it overlapped the *cerebellum*, or little brain, only in man; but it is now found that many monkeys have as good *posterior horns* as we have, perhaps better.

As the cerebellum has been mentioned, perhaps we may remark that it is a popular phrenological fallacy to consider it the seat of the animal propensities; it is now believed to have an excessively complex function, presiding to a certain extent partly over sensation, partly over motion, and partly over nutrition.

This chapter may show how wearisome anatomy is to read with its tiresome repetitions, which, however, are necessary for the sake of clearness.

CHAPTER V.

THE LABORATORIES.

"Stinks"—HS—How to use a blow-pipe—Students at work in squads—Dirt—Burning the demonstrator—What it is the fashion to say—Dispensing and pharmacy—These might be taught at the Pharmaceutical Society's Hall—Prescriptions—A substitute for "Gregory's powder"—An after-dinner mixture—"Dog Latin"—Children's enjoyment compared with that of adults—The man who had an "annual dinner" every week.

No diploma can be obtained unless you have attended a course of "practical chemistry," or, as it is sometimes called, "chemical manipulations," by far the most popular part of the science with most men.

At Oxford, indeed, the professors of the natural science schools have fitted up the laboratories to such perfection, that the undergraduates are quite fond of going there to "kick up stinks," as the phrase is; and this is the reason why natural science of every department is, at Oxford, included under the comprehensive though not euphonious term "stinks."

Certainly the Oxonians have seized on the most prominent feature of practical chemistry. By some noses the odours of the laboratory are even less endurable than those of the dissecting-room, and it seems, in

most schools, impossible to secure proper ventilation without producing draught enough to blow out the lamp; so men would rather get used to sulphuretted hydrogen than take half an hour to boil a test-tube.

This "sulphuretted hydrogen," like old offenders, has several aliases; it is also called "sulphide of hydrogen," "hydro-sulphuric acid," and "rotten-egg gas;" but all these are such long names that, as it is in constant use as a test, it is generally called "HS," its chemical symbol; and you will not be long in the laboratory before you find a little "HS" goes a very long way. We may remark that "HS" is found "native," "wild," or "free," in the mineral waters of Harrowgate, Cheltenham, Leamington, Gilsland, Moffat, and Strathpeffer.

But "HS" is not the only bugbear of the laboratory; you burn your fingers with the test-tubes; you spill strong acid on your clothes and hands, turning the former red and the latter yellow; your retorts *will* burst; and though you observe every precaution by covering your substance for the blow-pipe test with "microcosmic salt," or "black flux," you will, for some time, find the first puff scatters everything, and nothing can you "reduce," no matter what pains you take.

Patience, patience! When you know the different processes in your 'Practical Chemistry,' by Bowman, or Noad, or Odling, you will have learned how to manage your blow-pipe, though it seems so difficult at first.

It is quite easy when you have acquired the knack; but we have not seen the "knack" described intelligibly in any book yet, and we could not manage it till

we were taught this plan. "First try without a blow-pipe; close your mouth, distend your cheeks, breathe quietly; you will soon discover that you can breathe comfortably without the least effort to keep your cheeks distended. All right; now try the same thing with the blow-pipe in your mouth. No; don't *blow*, only *breathe*. There, that's it; now you can blow away for half an hour, if you like, without stopping!"

And so you can. You will be quite surprised to see how easily men acquire the "knack," when a little trouble is taken to teach them.

A stranger might easily while away an hour or two —if he did not mind the smells—watching a number of students at work in the laboratory; they are told off into squads and placed at long tables, with chemicals and apparatus arranged for the various processes to be learned at each table. The squad at table A will perhaps practise "glass-blowing" to-day, while to-morrow they will change places with the squad at B, who are trying to collect gases under water. Squad C may be practising "acidimetry" and "alkalimetry"—squad D, "distillation;" and it is ludicrous to observe how disgusted they look at finding the water less pure after the process than before. Squad E will be taking the "specific gravity" of everything they can lay hands on, and losing much time and temper in trying to make slip-knots in refractory horse-hairs, for suspending in water the objects to be weighed; while squad F may be performing Marsh's test for arsenic. It is at this last table that retorts, Wolff-bottles, and Florence-flasks come to their untimely end; for most men set light to their "nascent hydrogen," as soon as it begins to be given off, without waiting till the air

is all expelled from the bottle. The explosion of the mixed gases makes a great noise, but fortunately people are very seldom hurt.

But the best fun is testing for "unknown substances;" you derive no pleasure from manipulation till you reach this stage; but the last step in an analysis affords the same kind of gratification as we feel in putting the finishing stroke to an equation in algebra, "x = the answer." It is all the more satisfactory when you have got it right "in spite of the book," as you are pleased to say; for the book told you such and such a reaction should produce a "yellow crystalline precipitate," yet all you found was a nasty, muddy, yellowish cloudiness. Still you guessed right. "Ah! had him there," you say, with a chuckle.

Lord Palmerston is said to have defined "dirt" as "matter out of place;" and in performing analyses you will soon declare the definition true. Dust is the bane of the life of the young chemist, but besides this, he will often find his results obscured by the "impurities" of the common chemicals in the laboratory; for compounds of sodium, arsenic, and sulphur seem as difficult to eradicate as thistles from a pasture.

"How provoking! This *must* be Epsom salts; here's the magnesia detected in this test-tube, and here's the sulphuric acid demonstrated in that; yet here's soda shown as plain as a pike-staff in this one! What the deuce does Charlie (the demonstrator) mean by saying it consists of only one acid and one base? I'll serve him out!"

Yes, that's right; wrap a piece of paper round the top of the test-tube, heat it as hot as you can, go up to him with indignation expressed on your outraged

countenance, thrust it into his hand. Hallo! what's the matter? You seem more surprised than ever. Yes, no wonder! He takes it in his hand by the *very hottest* part, though you have only just removed it from the flame of the spirit-lamp, and asks you smilingly what is the difficulty. You explain: he satisfies you that the impurities have deceived you; and you go your way in amazement that his hands are so much less sensitive than yours were, even at the end of the cricket season at school. You will not be surprised at the end of the course: yours will be nearly as callous as his if you attend regularly; and though you will doubtless say you are glad it is over, yet we are sure you will confess it is "worth any amount of lectures, and wish all your time had been employed as profitably as the hours you spent in the chemical laboratory."

N.B.—That is what it is the fashion to declare; for our own part, we cannot say we ever liked it at all; we found it only less detestable than dissection.

The apothecary's shop is at some hospitals dignified with the name of "laboratory;" but at most places it is now called "the dispensary." Every student is required to spend three months in it to learn "dispensing" and "pharmacy." The former can be easily picked up in a few weeks, but it requires a long and careful training before you can be an adept in the latter; for it is trouble enough to learn the appearance of drugs themselves, without getting up their preparation and adulterations at all. "Tears" and "masses" give you bother enough, still more do the different sorts of drugs, like cardamoms —varieties of which are called "long" cardamoms and "short" cardamoms, "long-short" cardamoms, and "short-long" cardamoms; so that you feel quite frantic

at the numberless specimens of cinchona bark, the different kinds of which you are expected to distinguish.

Pharmacy is not of much use to practitioners who settle in England, whatever it may be to colonists, so it is not taught well.

We think it is scarcely worth teaching at all, except to druggists; but if it must be learned by the student, it might as well be learned better. Very few doctors know or care anything about drugs, so we think it would be better if the chairs of materia medica were changed to chairs of therapeutics, including action of medicines, dietetics, hygiène, and climatology; while all the students of the London medical schools might be sent for a thorough training in materia medica and pharmacy to the Pharmaceutical Society's Hall, 17 Bloomsbury Square.

You learn dispensing pretty well, if you don't learn pharmacy, the recognition and preparation of drugs; but really there is not much to learn in dispensing. You are taught how to make pills and spread blisters, how to fold powders and to make up mixtures, and if you don't soon tire of all this drudgery we shall be surprised.

The difference between "draughts" and "mixtures" puzzles you at first. There is no difference really. A "draught" is merely a small "mixture," which is to be taken all at once, instead of by instalments.

The chief use of dispensing is to make you familiar with prescriptions, but these are not now written with anything like the precision which was formerly thought necessary.

At one time prescriptions contained scores of ingredients; now they often do not contain the four elements

called the "base," the "adjuvant," the "corrective," and the "vehicle," which are requisite theoretically to form a perfect prescription.

Here is a prescription for a powder, Mr Druitt's formula 38, in the ninth edition of his vade-mecum:—

℞. Pulv. rhei., gr. x.
Sodæ bicarb., gr. xx.
Ol. lavand., gtt. v.
Sacchar. alb., gr. xx.
M. ft. pulv. sig. ex aquâ sumend. horâ somni. Mitte tales jv.

Translated from dog-Latin to plain English, it reads R., recipe—

Take of
Powdered rhubarb, grains 10.
Bicarbonate of soda, grains 20.
Oil of lavender, drops 5.
White sugar, grains 20.
Mix. Let a powder be made; let it be marked, "To be taken in water at bed-time." Send four such powders.

Here the rhubarb is the base, or most active ingredient; the soda is the adjuvant, to assist it; the lavender is the corrective, to cover the bad taste; and the sugar, or the sugar and water, will be the vehicle, or means of administration.

The following may be considered a formula for a "mixture," not "shockingly nasty," let us hope:—

Take of
Tincture of hospital,
Solution of anatomy,
Essence of note-book,
Infusion of gossip—of each a sufficiency.
Mix. Let a mixture be made; let it be marked, "Medical students of the period." One-twelfth part to be taken after meals.

Students are apt to neglect prescriptions. "Oh! any one can write dog-Latin enough for prescriptions," said a friend of ours, just before an examination; so, to try him, we replied, "Indeed! then how would you translate this, 'Before taking the mixture, shake the bottle'?"

"Antequam capias misturam, quate amphoram," was the answer.

"Doggy, indeed! but 'quate amphoram' can only mean 'brandish the jar;' whereas I am supposing only a six-ounce bottle."

"Oh, hang it! 'agita bottlum'—how do you write it?"

"I should add it to the dose, giving the following direction:—'Misce, fiat mistura, cujus capiat unciam ter quotidie, concussâ prius lagenâ' (mix: let a mixture be made, of which let the patient take two tablespoonfuls three times a-day, the bottle having been previously shaken). So you see there is something in knowing dog-Latin after all."

Curious mistranslations of the directions given by the physician are on record. "Maneat in lecto," "let him remain in bed," was rendered, "to be taken in milk in the morning;" while "ex lacte sumend.," "to be taken in milk," appeared as "to be kept in bed." "Micæ panis," "bread-crumbs," became "mixed with bread;" and a patient who was ordered "cubare molliter," "to sleep softly," was informed that he was to "smoke quietly." This was supposed by Sir Thomas Watson, who tells the tale, to be the idea of a gentleman who smoked Cuba tobacco; but happily such ludicrous mistakes belong to the past, not to the present, generation of students.

The powder given above is mentioned, because it is a

good substitute for Gregory's powder, and yet is not half so nauseous as that atrocious compound, so it is much better for children.

Some people are hard-hearted enough to say that little boys and girls who stuff themselves with "goodies" in the holidays, deserve to have nasty physic to put them right again. We cannot agree with such martinets, who, by the by, would not be half so strict with grown-up people, but would probably suggest some nice brandy and soda, or hock and seltzer-water after a city feast. Lord Milton tells us, in his interesting account of 'The North-West Passage by Land,' that there was the most exquisite pleasure in eating after having been on short commons for some time; so who will venture to say children have not this pleasure in gobbling sweet things? Don't be too severe on them, poor little dears! they have not long to enjoy themselves; why disturb their innocent amusements with visions of "Gregory" to-morrow? We are sure they are far happier than their grown-up relatives, who are figuratively said to "enjoy themselves" at a party where at least six times as many people come as the rooms can accommodate, not to mention the chairs.

Yes, seats are denied you, air is not to be had, dancing is the only amusement; yet how are you to dance when you cannot move without endangering some gauzy texture which envelopes you in an ocean of gossamer?

Young ladies call this "paradise," and you are expected to make yourself very agreeable. As you pour your soft nothings into their expectant ears, what would they not vote you if they could read your selfish and undignified thoughts,—"What a confounded

squash there is! I can hardly breathe! Oh for a sofa and this week's 'Owl'!"

Depend upon it no such corrosive thoughts disturb the ingenuous breasts of our gobbling youngsters; therefore, dear youngsters, pray gobble still.

If you gobble judiciously when you are grown-up, you may perhaps make a reputation as a "gourmand;" that is the respectful term, children, by which "society" designates a full-fledged gobbler. Let us tell you a story about one:—

A rich gormandiser subscribed to half the charities in London that he might enjoy an "annual dinner" every week. At one of these feasts a waiter observed his eating powers, and determined to feed him assiduously, just to see how much he could eat.

"Some of this, sir?" offering a fifth side-dish with a long French name. "Please,"—helps himself liberally, waiter is going—"and, I say, waiter!" "Yessir"—waiter stops expectantly. Dives drops his fork, raises his left hand with a rhetorical flourish, looks very serious, and, as soon as his mouth is empty, slaps his left thigh to give emphasis to the solemn injunction—"Waiter, bring me EVERYTHING!"

Being chaffed by a friend about his gastronomic powers, he observed that it was a faculty he had inherited, and he could not understand why other people had not inherited it to the same degree, being all descended from Adam and Eve.

"Adam and Eve! What have they to do with stuffing?"

"Ah, my dear fellow, I'm afraid you didn't keep chapel regularly when you were at Cambridge! When I was at college I remember a scholar was reading the

first lesson in chapel one Sunday morning,* and he came to a verse which he thus pronounced, to the enlightenment of our understanding:—'She took of the fruit thereof, and did eat; and gave also unto her husband with her, and he DID eat!'"

* Sexagesima Sunday, Gen. iii. 6.

CHAPTER VI.

THE HOSPITAL.

Clinical lectures and instruction—St Vitus's dance—Organisation of a London hospital staff—Clinical clerks and dressers—Bathos by the chairman—Number of beds in the various hospitals of London—The Children's Hospital—Convalescent hospitals—How to dress sick children—The sliding-scale—The tumult.

It is in the wards of the hospital that the medical student learns the most important part of his profession, where he receives what is called "clinical instruction," both in the form of set "clinical lectures" in the operating theatre by the physicians and surgeons, and in practical remarks by the members of the staff as they visit each patient.

"Well, good-bye, Mr Clericus; I am very glad to have seen you; but now I must be off to clinical," we said one day, after meeting our old friend, the clergyman of the parish.

"'Clinical!' what is 'clinical'? The last time I was in town you were just going to 'clinical.' Is it what you students call your lunch, in the same way as your old Indian uncle calls it 'tiffin'?"

This is a question that is frequently asked by people

not in the profession; so we may as well put down our answer.

"Oh dear, no! *clinical* means a *clinical lecture*—that is, a lecture upon patients in the hospital, notes of whose diseases have been taken at the bedside (πρὸς τὴν κλίνην, you know) by a student, hence called a *clinical clerk*. We assemble in the operating theatre, the '*C. C.*' reads the cases, and the physician under whose care they are makes remarks upon them, giving us the most modern views with regard to their nature and treatment. When a *clinical* is carefully prepared—as it always should be, or it is apt to be prosy and desultory—it is far the most interesting lecture of the day, and the examining boards insist more upon attendance at these than at any other lectures. Will you come? We shall have a good one to-day; it is to be upon 'chorea,' that is 'Chorea Sancti Viti,' well known as 'St Vitus's dance.'"

And he *did* come, and was much interested, for there were several good cases. One was a little girl, who was frightened by some "bogies," which turned out to be nigger-singers more hideously disguised than usual; another was a young woman seized with chorea on hearing of the loss of her lover's ship with all hands, before the lifeboat could reach them; another little girl had been desperately frightened by being nearly run over in crossing the street; and the most interesting case of all was that of a man in whom it was brought on by losses in his business. The interest was great, both because the complaint is rare in men, and from the control which he could exert over it when absolutely necessary. Though shaking in every feature and limb, he was able to write his signature to

receipts, a specimen of which was handed round, and it was perfectly legible, but rather different from his usual writing, because he could make only one letter at a time with a spasmodic effort, and was obliged to stop a few moments before attempting the next.

The good clergyman's attention was quite captivated by the details of these cases, and he brought all the men's eyes upon him by a loud "Dear me!" when the physician pointed out the frequency of fright in producing the complaint, and mentioned Sir Astley Cooper's oft-quoted case of the little girl who was frightened into chorea by one drunken man, and frightened out of it by another, before she had been long under treatment.

He was so much edified by what he heard, that he said he should certainly keep a constant look-out in his parish for "good cases," and send them to the hospital for the benefit of the young doctors, as well as the patients—an excellent example for all clergymen, we voted.

The medical staff of the hospital, according to modern organisation, consists of many different elements; you will not find all these elements yet at every hospital, but we will write down a list of medical officers, and their subdivision of labour, in the various branches of the profession, as you may find them existing, if you visit a number of hospitals. It seems to us that before long every large hospital will provide itself with an efficient staff of scientific men, who will share the duties somewhat after this fashion, and take it by turns to hold the office of "dean" for a year, a post equivalent to that of "tutor" at Cambridge.

ÆSCULAPIAN HOSPITAL.

Physicians.

Dr A., Lecturer on Medicine.
Dr B., ,, Materia Medica.
Dr C., ,, Forensic Medicine.
Dr D., ,, Obstetric Medicine, and special physician for diseases of women and children amongst the in-patients.

Surgeons.

Mr E., Lecturer on Surgery.
Mr F., ,, Anatomy.
Mr G., ,, Physiology.
Mr H., Oculist, and sometimes also Aurist.

Assistant-Physicians.

Dr I., Lecturer on Pathology.
Dr J., ,, Botany.
Dr K., for general medical cases.
Dr L., for diseases of women and children among the out-patients.

Assistant-Surgeons.

Mr M., Demonstrator of Anatomy.
Mr N., Lecturer on Zoology.
Mr O., for general surgical cases.
Mr P., Dentist.

The chairs of "chemistry and natural philosophy," and of "practical chemistry," are generally filled by scientific men, who do not practise, so they hold no clinical appointment, but they are members of the committee that manages the hospital.

Besides these, a well-ordered hospital will have on the staff four other medical men, young ones waiting for a practice, who have not charge of patients, and who take these appointments till they have a chance of obtaining better.

G. L. SIMMONS MEDICAL LIBRARY

Dr or Mr Q., Medical Tutor, who helps the students in their private reading, and sets them examinations every week, so as to prepare them for the public examining boards.

Dr or Mr R., Pathologist, who makes all the post-mortem examinations, keeps an account of them, and is curator of the museum.

Dr or Mr S., Medical Registrar, who registers, with brief notes, all the medical in-patients.

Dr or Mr T., Surgical Registrar, who performs the same duty for surgical in-patients.

Then there are the resident medical officers:—

Mr U., Senior House-Physician.	Mr Y., Senior House-Accoucheur.
Mr V., Junior ,,	Mr Z., Junior ,,
Mr W., Senior House-Surgeon.	
Mr X., Junior ,,	

These are chosen from the students who have just passed, and they hold office for limited periods, generally six months.

But the students who have *not* passed are not excluded from hospital appointments; every physician and assistant-physician has three or four "clinical clerks," every surgeon and assistant-surgeon three or four "dressers," who, like the resident medical officers, hold office for six months.

Students must be four years in training at a medical school, so they generally apportion them in this way: in the first two years they get over their dissection and nearly all their lectures, so that in the last two years they can take all the students' hospital appointments, without having their hands too full; in the former period they run about the wards and out-patient rooms with their eyes and ears open, but in the latter they "go in" for actual "clinical work."

The favourite way of proceeding seems to be this,

from the easier to the more difficult duty, when possible: third year, first half, out-patient dresser—last half, out-patient clerk; fourth year, first half, in-patient dresser—last half, in-patient clerk; so that they go up for their final examination freshly primed from the wards; and when they want their testimonials, they will discover they have not yet slipped from the memory of the big-wigs.

Clinical clerks and dressers do not obtain their appointments in the same way at every hospital, but examinations have always more or less to do with the arrangement.

At one well-conducted hospital the successful competitors for these posts are presented to the committee of management, the chairman of which congratulates them, commends the conduct of their predecessors, and hopes they will "go and do likewise." The chairman is not always a member of the staff, nor even in any learned profession at all, and portly aldermen have been known to find themselves out of their depth in making the customary little speech. On one occasion a worthy magnate of this class concluded his address with these words: "You will, I trust, emulate your predecessors in the kindness with which they treated the patients under their care. But while you practise this Christian courtesy towards your poorer brethren, you will not fail, I hope, *to recollect that this hospital is supported entirely by voluntary contributions, so that you must not be too extravagant in the use of lint and plaster.*"

This specimen of bathos reminds one of the judge whom Lord Campbell says he heard thus sentence a prisoner to death at Stafford for forgery, in the cruel old times when it was a capital offence: "—— and I

trust, through the mediation of our blessed Redeemer, you may experience that mercy in another world, which *a due regard to the credit of the paper currency of the realm forbids you to hope for here!*"

And the economy recommended resembles that of the sportsman, who, wishing to reduce his other expenses in order to keep up his stud, signalised his first year of retrenchment by a triumphant measure of reduction—he ceased to take the 'Illustrated London News'!

A hospital organised like that, which, for the sake of a name, we have ventured to call the "Æsculapian," if it have three hundred beds, provides students with a sufficient field of observation of every kind of disease, except unsoundness of mind, for which they must go to an asylum.

The number of beds in each hospital which has a medical school attached is as follows :*—

Hospitals.	Beds.
Charing Cross,	115
Guy's,	575
King's College,	160
London,	520
Middlesex,	310
St Bartholomew's,	670
St George's,	350
St Mary's,	150
St Thomas's,	210
University College,	136
Westminster,	200
Total,	3396

* The London Hospital has 445 beds in constant use; the 75 beds in the new wing are not yet filled up. St Bartholomew's has 650 beds in constant use, 20 being kept in reserve for emergencies. St

Besides these eleven, the 'Medical Directory' mentions thirty-three other hospitals which have no medical schools attached to them, containing from 3 to 260 beds, the total number being 1693, or about 69 each on an average.

Therefore the total number of beds in the London public hospitals may be stated at 5089, with the present St Thomas's—and 5589 when that hospital shall have regained its 650 beds.

This computation includes the German Hospital, the Convalescent Hospital in Sackville Street, and the Dreadnought hospital-ship.

But of these 5089 only 3396 are available for clinical teaching, giving eleven hospitals with an average of about 300 beds to the medical schools; whereas, if the other 1693 beds were distributed among them, we might have eleven fine large hospitals, with an average of about 500 beds each.*

It is much better to have a large hospital, with wards allotted to special purposes, than to have a number of small hospitals, each devoted to the treatment of special diseases. A country like ours, which knows so much about engineering and commerce, ought to be aware there is an immense waste of power in keeping up such small institutions, which absorb a very large proportion of the subscriptions in payments for bricks and mortar,

Thomas's is at present in a small building at Newington, Surrey, but when rebuilt on the fine site opposite the Houses of Parliament it will contain 650 beds. It used to stand in St Thomas's Street, opposite Guy's, but it was pulled down to make room for some works connected with the London Bridge Railways.

* There are several thousand beds in the workhouse hospitals, but the patients in them are principally aged and infirm, so they would not be available for clinical purposes.

ground-rent, and salaries to various officials ; while the patients are not so well off as they are in the large hospitals, for no house-surgeons are provided in many cases, as the place is unable to pay one, and is too insignificant to attract men to take charge of it for nothing. London possesses not only special hospitals for diseases of the lungs and the eye—for which, no doubt, a more plausible defence may be set up—but also for crooked children, for cancer, for sore legs, and for other surgical diseases, some very severe, but others so simple that the patients are quite well a few days after the operation !

A special hospital is always likely to attract the worst cases; so that if a man wants to learn his profession thoroughly, he must, if this state of things be allowed to continue, pay a heavy fee to learn every separate disease. Very few would be at the bother of running about from place to place, even if they could afford it; so the sooner these "cancer shops" and "sore-leg shops" are abolished, the better. Most of the medical officers are also on the staff of other hospitals—*they* would lose nothing ; houses and shops are so eagerly sought after in London, that the *governors* would lose nothing ; while, if the proceeds of the sale of the buildings were employed in improving and enlarging the general hospitals, the gain would be great, both to the patients and the students; and thus indirectly to the public, who would then be tended by doctors who would have seen better practice at their medical schools than is possible under the present system.

People ask, "What! would you admit *fever* cases into the general hospitals?" Yes, certainly; it is not a ques-

tion of "*would* you admit?" but it is a plain fact that "we *do* admit" infectious diseases of all kinds. We cannot help it; the fever hospital is not half large enough, and is obliged to reject patients by scores, for want of room. We do not belong to that unfeeling age, when sufferers were turned from the doors of hospitals unaided, if they were so unfortunate as to be afflicted with "consumption or any other incurable disease." No; we admit all we have room for, giving the preference to the worst cases; for our improved acquaintance with sanitary laws enables us to take such precautions, that statistics prove infectious diseases are not more dangerous in well-conducted general hospitals than in special ones, either to the "fever" patients themselves, or to those who were admitted for other diseases.

And here we may be permitted to mention that we owe more than is generally supposed to one pre-eminent sick man's friend. We all know well enough how justly Longfellow has sung the praises of Florence Nightingale, as

> "A noble type of good
> Heroic womanhood;"

how she was the guardian angel of the wounded Crimean soldiers; and how celebrated her 'Notes on Hospitals' and 'Notes on Nursing' have become; but it is not generally known that her system of nursing is gradually being adopted in every hospital, so that her "St John's Training Institution" in Norfolk Street, Strand, cannot supply nurses fast enough to meet the demand for them; and fewer still have heard that she has drawn up a classification of diseases, with registers, indices, and so forth, on a plan so admirable, that it was accepted by the International Statistical

Congress, when it was laid before the assembled savans in 1860.* One feels quite pained to think such a peerless benefactress to suffering humanity should be in such wretched health herself; let us hope her own sufferings may be mitigated in alleviating those of others, for surely no one can say with greater truth than herself

"Non ignara mali, miseris succurrere disco."

Of special hospitals, perhaps a "children's hospital" is the least objectionable, as they require a playground. Children are among the most satisfactory patients we have, for they are very docile when they are away from their mothers; and if properly managed, it is quite surprising how well they behave, poor little things! even when undergoing operations in which it is impossible to administer chloroform. Then they are so small that they can be lifted about and washed without trouble, and they look so pretty, when they are lying patiently in clean sheets, dressed in clean night-gowns, to receive visitors in the afternoon.

The children's hospital in Great Ormond Street is ridiculously inadequate for the purpose; it had till lately only sixty beds to place at the disposal of London's three millions; while Paris, with only a third of the population, has a children's hospital of nearly 400 beds. "They manage better in France," you see, in this as in many other things. The Ormond Street hospital has lately been made large enough to hold a hundred beds, as public attention has been drawn to it a

* The Congress was held in King's College, from July 16 to 21, 1860, Prince Albert delivering the opening address. The paper was read to the second section, that on Sanitary Statistics, over which the Earl of Shaftesbury presided.

good deal lately in various ways; for Mr Charles Dickens has written about it, the Archbishop of York has preached for it, and the Princess of Wales has taken great interest in it since she has been a mother.

A hundred beds are better than sixty, but that is all you can say; for even with the special wards in the general hospitals, there is not half enough accommodation for children. By-and-by, we believe, it will be different, for there is a growing tendency to build "convalescent hospitals" in the country, with plenty of ground round them. These will supply a great want; so let us be quick with them, and let us send the children where they will not only be cured, but also regain their health—phrases not really synonymous.

Children with surgical complaints can easily be kept from crying when they are being dressed, if the dresser have a little patience with them. We remember a certain "wee Georgie," who taught several of us dressers a good many wrinkles. At first he cried at seeing a new face, for he descended to us as a legacy when our predecessor's term of office expired; but he soon became reconciled to us on finding we did not resent his pulling our whiskers as we bent over him, nor make any objection to his beating a tattoo on the cradle with a probe and director, which he filched from our dressing-case as it lay on the bed. He had disease of the knee, for which the joint had been "resected"—that is, cut out; and the process of healing was long and tedious. At one time it was so much inflamed that he could not bear it to be touched, so we found it was better to let him dress it himself, under our superintendence, we merely putting on the bandage. This agreement produced so much mutual satisfaction, that we always treat our little pa-

tients now as "wee Georgie" taught us. Poor little boy, he was sorry to leave us when he got well!

* * * * *

"Well, Willie, what are you so disconsolate about this morning? Haven't you had any breakfast?"

"Oh! 'essir—only full diet take all my apple-tite away! I can't eat any more," and this in a most piteous tone.

"Yes, sir," says little Edie, backing up her friend Willie; "he couldn't eat all his bread and butter when he had full diet brought him this mornin'; but oh! he had such a *drink-etite!* He finished all his own milk, and I gave him some of mine, and yet he was dry!"

Their little remarks are often very amusing. The sister in charge of the children's ward had a bad headache for a day or two, and wee Robin, a golden-haired little urchin, was quite concerned about her; he came up to her as she lay on a couch, and stroked her hand, then "Oh! sister," he said, "I can't bear to see you so ill; why don't you get well? I'll tell you what you should do. *You ought to have a baby; mother always gets well as soon as she's had a new baby.*"

Doubtless his mother must have had her family come on very fast, as he was only seven years old, or his infant mind would not necessarily have connected illness with babies, for we know the eldest daughter in a large family, who fell into the same error when she was a child. An uncle, who was very fond of her, was dying, and wished to see her. She was much distressed at finding him so ill, and, after she left, said, "Mamma, what makes poor uncle Willie so ill? Is he going to have a baby, as you do when you are ill?"

We have often been struck by the sharpness displayed

by children when they have been a short time in the hospital, especially as it is sometimes contrasted with unexpected dulness on the part of their elders. In cases of pneumonia, typhus fever, and some other diseases, it is customary to keep a table with a sliding-scale, to show the variations in the temperature of the patient's body from day to day, just like the sliding-scale of the price of wheat, which most squires keep in the sanctum they persist in calling their *study*.*

Well, one day we found we could not manage to be at the hospital at the proper time for taking the height of the thermometer in a case of pneumonia, and as we did not wish to trouble the house-physician, we looked out for some intelligent patient who might be competent to make the observation. Ann J. was a housemaid, and we thought she would do, so we asked her, "What does the thermometer stand at?" to see if she could distinguish the mercury, which some people cannot do.

"It stand ag'inst the flower-stand on the doctor's table, sir."

"But I mean *how high* does it stand?"

"About half-way up the handles, sir."

"No, no; I mean how high does the mercury stand in the tube?"

"There's no tube on the table now, sir; nurse has taken it away to wash."

And actually, when we came to inquire, we found

* A lady asked us one day what a sliding-scale was. We began to tell her it was a zig-zag line drawn across a number of little squares like panes of glass.—"Oh, I know, just like a flash of forked lightning across a church window!" she exclaimed. After this graphic description, we are sure, reader, you comprehend it thoroughly.

she knew nothing whatever about the thermometer, and had never noticed the figures on the scale, though she had seen it applied to the pneumonia case for several days.

Since then we have found many tradespeople quite as ignorant on this subject as this smart housemaid. As she took so little interest in anything that went on under her nose we thought she would not be a very apt pupil, so we asked for little Jenny, the daughter of a farm-labourer in the country, where she had lived all the ten years of her small life before she had come to the hospital. She had not been long in the house, but she seemed sharp, so we thought we could easily make her understand what we wanted. She came, and we asked her, "Jenny, do you see these little marks by the side of the glass, with figures here and there?"

"Yes, sir—the mercury is now standing at sixty-three degrees."

She said this quite composedly, and she had not heard us speaking to Ann, so you may imagine how agreeably surprised we were to hear her come out with it so pat, as she had never seen a thermometer before she came to the hospital; but she had watched the clinical clerk's operations at the bedside of the pneumonia case with such interest, that her curiosity was never satisfied till she had prevailed on the sister to tell her what it all meant.

Of course she took the observation for us all right, so our sliding-scale was not damaged.

Here is another instance of juvenile acuteness. One Sunday morning a sister was reading and explaining the second lesson to her little patients, when she came to the following verse in the account of our Lord raising

from the dead the daughter of Jairus :—"And he cometh to the house of the ruler of the synagogue, and seeth the tumult, and them that wept and wailed greatly" (Mark v. 38).

"Do you know what a *tumult* means?" she asked.

"Oh yes," said a bright little girl; "I suppose that's what she died of, poor thing."

The child evidently confounded *tumult* with *tumour*, a word in constant use at the hospital, of course.

The subject of chorea is introduced in this chapter merely for the sake of referring the reader to Hecker's 'Epidemics of the Middle Ages,' translated for the Sydenham Society by Dr B. G. Babington, 1844; and to Dr Roth's 'Histoire de la Musculation Irresistible.' London: Baillière, 1850. These books must be of the greatest interest to all who desire the extinction of superstition, for they show how the mysterious "Demoniacs" may be reduced by modern science to the rank of patients suffering from various nervous diseases, many of which are curable.

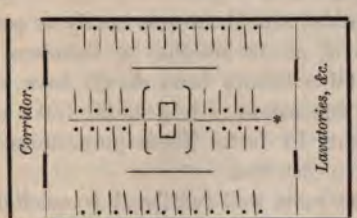
Musical readers may perhaps like to know that the first named author (p. 167-174) gives the music for the dance called "Tarantella," which was at one time a widespread epidemic.

CHAPTER VII.

THE WARDS.

Arrangement, description, and diagram of a ward—Christmas decorations—Beds—Screens—Stamps—Bazaars—Walls—Floors—"Tommies"—Brackets—Prescription-papers—Clothes-box—Bracket-chair and bed-table—Sisters of Mercy *v.* paid nurses—District visiting—Costume—Nurses' duties and costume—Wards for patients of a better class—Proposed alterations for provincial hospitals and dispensaries—Fourth-year men might be unpaid assistant medical officers.

We keep talking of hospitals, wards, sisters, and nurses; but as some of our readers may have not the least idea what they are like, perhaps we had better describe them. The wards are not alike everywhere; but the arrangement which seems most approved nowadays for a hospital in London, where space is so valuable, is that which contains forty beds, placed as shown in the diagram:—



It consists of two large rooms, comprising the whole width of the pavilion of the hospital. The wall which separates them allows communication at the two ends, and has large openings in it close to the ceiling, opposite the windows, to insure ventilation for both rooms. The windows are made of very thick glass, and reach nearly up to the ceiling. The lower sash is seldom moved, but the upper sash is on a hinge, and opens inwards. The air passes in and is changed at the very top of the ward; the bad air goes out at the opposite window, and thus all draught below among the patients is prevented.

The fireplaces are at the middle of the partition-wall, so that the heat radiates from the centre of the ward; and if a good fire is kept up, the rooms do not feel cold, even at the farthest corner.

You enter from the corridor by the folding-doors, which sometimes have to be thrown wide open to allow patients to be carried in. Opposite these are smaller doors, at the other end of the room, leading to lavatories and other conveniences, which we need not explore to-day. Suffice it to say that the baths and so forth are on a scale of liberality which would astonish our ancestors, who used to think they provided for every contingency when they afforded you the means of washing about a square foot of you.

Each patient should have as nearly as possible 1600 cubic feet of air to breathe in, therefore each room which contains twenty beds should have at least the following dimensions:—length, 80 feet; breadth, 26 feet; height, 15 feet. These proportions give 1560 cubic feet to each bed.

But a low room well ventilated is much better than

a lofty one badly ventilated, and the beds must not be crowded together because a high room gives the requisite number of cubic feet vertically. No; in this case, as in Mr Disraeli's view of the suffrage, "lateral extension is imperative."

Low comfortable settees are on each side of the fireplace, opposite which stands the table at which convalescents dine, and on which are placed the medicines, basins for the doctors to wash their hands in, generally a flower-stand, and sometimes a small aquarium, which is a source of much pleasure to patients.

When the chaplain reads prayers, his lectern is placed between the two rooms, at the point marked by the asterisk, so that all can hear him, and join in the responses.

In hospitals we have not met with the prison difficulty. Patients are generally willing to listen to the Anglican chaplain, no matter to what sect they may belong; but if any Roman Catholic or Jewish patients wish for their own spiritual adviser, he is summoned at once to the side of the sick-bed. No proselytising by any one is allowed. The poor patients have enough to interfere with their convalescence already without troubling themselves about controversy.

Shelves for books, workboxes, and flowers are placed wherever convenient, and the walls are adorned with pictures presented by kind friends.

At Christmas, great pains are taken to ornament all the walls and furniture, and the symmetry with which everything is arranged produces a good effect, no matter how simple the decoration may be; not, however, that simplicity often prevails, for the inmates of each

ward keep up a good-humoured rivalry in making the most elaborate devices.

The walls and ceiling are very thick, and are covered with Parian cement, to prevent the absorption of noxious gases. The floors are stained brown, and polished with beeswax and oil for the same purpose. Hospital floors should never be washed with water, always with oil: patients soon get used to the slippery boards, as we do when we go abroad.

A ward thus arranged, and kept in good order, looks very cheerful and cosy; but we shall never consider hospitals are complete until there is a day-room, as well as a dormitory and lavatory, to each ward.

The bedsteads are of iron, and stand against a ledge in the floor, about half a foot from the wall. This is to permit the ready removal of dust, and thus prevent its accumulation, which is sure to occur when the operation of "dusting a room" is not easily performed. To guard against dust also, there are no curtains; but when privacy is required, screens are placed round the bed. Some of these are covered with picture scraps; and it is much to be wished they were *all* so adorned, for poor invalids like something interesting for their eyes to rest on when they lie lonely, too tired to talk, too weak to read, too weary to think.*

It is true that to lie still and do nothing is perfect enjoyment to many poor people who have been terribly overworked, while pictures and toys are to some patients

* Patients are deluged with tracts, but they have not half enough newspapers. We believe that papers enough to supply all the hospitals in London could be easily collected by the railway porters, if passengers would leave for that purpose in their carriages the papers they were reading on their journey to town.

positively injurious; but the majority would derive nothing but benefit from the amusement afforded by picture-screens.

The most beautiful screen we have ever seen was made in this manner. It consisted of six large panels, joined together by hinges, each panel being about $5\frac{1}{2}$ feet high and $2\frac{1}{2}$ feet wide. In the centre of each was a large picture, either a portrait or a landscape, and this was surrounded by a multitude of small ones, exquisitely grouped; in fact, they were harmonised like the scenes in the web of Arachne, so that you could not tell where one ended and another began. The frame was of polished walnut, while the pictures were pasted on both sides of the canvas which filled up the panel. Pictures from the 'Illustrated London News,' prints, lithographs, and photographs were all used in it, and the whole varnished to protect it from the action of the air.

We have described this with such minuteness in order to provide young ladies with a more useful amusement than stamp-collecting. There are about a hundred and eighty stamps to the square foot, and at this computation many young ladies have collected stamps enough to paper a house of moderate size from cellar to attic.

What is the use of the habit?

"Oh," we are always told, "I am collecting for a friend who has been promised a nomination to the Blue-Coat School for her nephew if she can collect a hundred thousand stamps."

Other charities are sometimes named, but to all such suppositions we should reply, "Fudge!" The expression is strictly parliamentary; it was introduced by an "independent member," so we need not apologise for

it; but we thus emphatically protest against people being a nuisance to all their friends, and all their friends' friends, in a perpetually widening circle, for the sake of such a frivolous pursuit.

Other people collect foreign stamps—dirty scraps, which require an eye of faith to decipher. "Why don't you get new ones instead of these nasty things?" we have often asked.

"Oh," we are told (it is always "oh," by the by, that begins the sentence), "if they have been used, they are sure to be genuine!"

Did it never occur to you, deluded damsels, that it must be far easier to counterfeit dirty, obscure stamps, than new, unused impressions?

Such was always our view of the case, so you may imagine the chuckle of satisfaction which was elicited when we discovered that Messrs Trübner & Co. had published a book by Mr Stourton, showing how to detect "forgeries in several hundred sorts of stamps."

You had far better make pretty screens for patients, and if you have no hospital in your neighbourhood, make it for one of those sales called "bazaars," where you are let loose upon the public ostensibly for the purpose of playing at shopkeeping, but really with the scarcely concealed intention of plundering in the most irresistible manner. Now, it's no use denying the soft impeachment, for you know you look as bewitching as possible while standing in the most picturesque stalls; you entice a man into buying all sorts of rubbish, and invariably refuse to give change with the most charming candour.

This is really "alms-giving made easy," for a man can have any amount of flirtation, which is all the

more enjoyable from the comfortable reflection which accompanies it, that he is "doing good" all the while, and that there is, after all, "something to see for one's money."

Yes, the saying is quite as valid in our day as in Cowper's,

"Doing good,
Disinterested good, is not our trade." *

Screens may be a step towards disinterestedness. Instead of buying smoking-caps, slippers, cigar-cases, etc., etc., *ad libitum*, for your own use, gentlemen, you might buy a screen of this sort at a bazaar and present it to any hospital in which you happen to take an interest; and, one word more, don't spoil it by sticking on a label with the inscription, "Presented by Somebody Something, Esq."

The beds are numbered. At the head of each bed, fixed to the wall, is a bracket which projects over the bed, and when required, there is a rope attached to it for feeble patients to clutch when they want to raise themselves up, and lean against their bed-rest. They like this rope very much, and call it a "Tommy."

The rod which supports the bracket has pegs to carry the number of the beds, the diet-card, and the frame for the prescription-paper.

The diet-card must be signed every day by the resident medical officer in charge to secure the food ordered for each patient, and we may take this as a specimen of the prescription-paper in a surgical case. The words in Roman letters show the printed form; those in Italics show what is dictated to the dresser:—

* 'The Sofa,' lines 673, 674.

{Bed No.} 5 WARD 3. {Surgical Register, No. 684.}

MR BROWN.

Name—*William Jones.* Age—*26, S.**
Occupation—*Agricultural Labourer, Brentwood, Essex.*
Admitted—*June 21,* 1866. Discharged—*Oct. 23,* 1866.
Event—*Cured.*
Disease—*Strumous disease of elbow.* *R.*† *2 yrs.*
Dresser—Mr *John Doe.* Case-Book, Vol. *12,* page *271.*

Date. 1866.	TREATMENT.
June 28.	*Elbow resected. Water dressing.*
	℞ *Liq. Morph. Hydrochlor.* ♏ *xx.* *Aquæ,* ℥*j.—horâ somni sumend.*
... 30.	*Liq. Condii pro lotione, quant. suff.*
July 5.	℞ *Ferri et Quiniæ Citr. gr. v.* *Inf. Calumbæ,* ℥*j.—ter die sumend.*
Oct. 22.	*To take a bottle of medicine home with him.*‡

* *i. e.,* Single. † *i. e.,* Right side.

‡ Though we all have to look after our patients, and index them several times, we hardly ever know their names. This man would always be called "the man with the elbow;" and in the same way we speak of "the child with the leg," "the woman with the heart," and so forth.

But we are bound to say the ℞ before the prescription is generally omitted if the writer is in a hurry, while "*quant. suff.*" is shortened to "*q. s.*," and "*ter die sumend.*" generally stands as "*t. d. s.*," so that none but the initiated would guess it meant "to be taken three times a-day." In fact, hospital prescriptions are not filled up with the precision observed in private practice.

At the lower end of the bracket is a small shelf for the book the patient is reading, the "sliding-scale" in cases where it is wanted, and several glasses containing a variety of things more interesting to the sufferer and his attendants than to the general reader.

Under the bed is a large box on noiseless india-rubber wheels, which holds the patient's clothes, while by the right side is a chair. It is a pity that every hospital has not chairs made in the same convenient form as in the Radcliffe Infirmary at Oxford. The seat of it is a small box, and the back has a long bracket attached by a hinge, so that it folds down, out of the way when not wanted; but when it is in use, the back of the chair is turned to the side of the bed, the bracket then projects over the patient's legs, and forms a little table, which may be used either for writing, or for supporting the plate at meals. It is a great comfort to people who cannot leave their beds, and it prevents the risk of the sheets being soiled by spilling the gravy and other things. A dirty spot is often the source of as much annoyance to patients as to their visitors, so the invention is very useful.

Each ward is under the superintendence of a "sister," each room in it is under the care of a "nurse,"

and they generally have the assistance of some "probationer," who is learning to be a nurse. The number of "night-nurses" varies with the number of bad cases, but for the ordinary routine, one to each ward is generally sufficient.

Of late years "Sisters of Mercy" from the various "sisterhoods" have become the "sisters" in some hospitals; and indeed it seems that before long every infirmary in the kingdom will have its staff of nurses organised on much the same plan as the famous establishment at Kaiserwerth on the Rhine, of which an interesting account is given by the author of 'Praying and Working.' *

Some hospitals have entirely abolished the office of matron, and vested her duties in the "lady superior" or "lady superintendent" of the sisterhood which has engaged to nurse their patients; and this arrangement has proved so satisfactory that it has been adopted even by boards of management consisting almost entirely of dissenters. But no wonder the work is done better when it is undertaken from a religious motive than when intrusted to mere hirelings; and any one who has an opportunity of observing how much good is done by these devoted ladies ceases to be surprised at the regard, little short of adoration, which is felt for them by many objects of their watchful care. Their influence is widespread, for they can often keep an eye upon a patient after he is discharged: a hospital sister sends a district sister to the address of some convalescent, and thus a family often finds the invalid a source of gain instead of loss. For

* 'Praying and Working.' By the Rev. W. F. Stevenson. Strahan, London. See the chapter on "Theodore Fliedner."

your Sister of Mercy is a firm believer in Sydney Smith's maxim—

> "District visiting without relief,
> Is like the mustard without the beef."

But her relief is not confined to the "splendid shilling," and the inevitable tract in a brown paper cover. No; she shows the poor inhabitants of the wretched lodgings how to keep their rooms tidy and the invalid comfortable; makes it her business to know where the best provisions are to be had for the smallest price; and when they have laid in their stores, she teaches them how to make the most of them by judicious economy. This plan of treatment insures the toleration of the succeeding hymn or chapter quite as well as the "shilling" plan, if not better; for a shilling is soon spent, but the practice of tidy ways becomes to some so attractive that they quite venerate the lady who wrought the change; and policemen will tell you Sisters of Mercy can go without fear of the slightest intentional annoyance where it would not be safe for even a clergyman to venture.

In hospitals sisters generally wear a neat black serge dress (without crinoline of course), white cap, apron, collar, and wrist-bands, noiseless shoes, and a cheerful countenance. They give the patients their medicines, help the nurses in dressing the *persons* of the more infirm patients, and the students in dressing their *wounds;* they shake hands with the doctor when he enters the ward, go round with him, and are sometimes found to know more about a case than even the resident medical officer in charge. They feed some poor people, take care of their valuables, write letters for

many, condole with relatives, and last, not least, conduct the musical part of the service in chapel.

All this may seem very easy work, but if you think so, young ladies, come and try it for a week; we shall be glad of your assistance, for you will find there is something more to be done than the poetical task of "smoothing the pillow for the aching head."

The nurses' costume is like that of the sisters, only their dress is some neat print, generally lilac, for the morning, and grey or brown alpaca or mohair when their work is over. They clean the wards and lavatories, keep the beds and patients tidy, and they are often much beloved, being quite different characters from dram-drinking Mrs Gamp.

The night-nurses are seldom seen by students—not unless they have to sit up with a bad case. They give the medicines ordered "to be taken every four hours," and are liable to be called to assist at operations on "accident cases" brought in late. At one time they could scarcely be trusted, they were so apt to fall asleep, but a great improvement has been observed of late years.

We are told by people who have been abroad, that most Continental hospitals have private wards attached, for the reception of patients of a higher class who cannot be conveniently nursed at home. The accommodation thus provided is paid for according to the scale of comfort afforded, and the doctor in attendance receives a fee, which is agreed upon in each case. It need scarcely be observed that the patient thus gets far better nursing than he would at home, and at far less cost, while he has the advantage of having a resident medical-officer always at hand on an emergency, who will also regulate the visits of well-meaning but injudicious friends.

This must be a great relief to the patient's family, and, as everything is paid for, it is not considered *infra dig.* to go to the hospital in this way.

Surely the adoption of this plan in London, and in other large towns, would be of incalculable benefit to many ladies and gentlemen with small incomes, whose means will not allow them to procure the necessary comforts and attentions which materially tend to make an illness less harassing, as well as to hasten recovery. We are a commercial nation, therefore permit us to add, "Might it not be made a source of pecuniary advantage to the hospitals themselves?"

Provincial towns might, we think, manage their hospitals on a different plan from the present with great advantage. The method we now venture to propose would give relief to a larger number of patients at less expense, and in a better manner, than is done by the prevailing system.

Suppose we take a place with from 50,000 to 100,000 inhabitants: the hospitals in it will probably be (1) a general hospital, with 150 to 200 beds; (2) a children's hospital, with 20 to 40 beds; (3) an eye hospital, 20 to 30 beds; and (4) a maternity hospital, 10 to 20 beds: in all, 200 to 290 beds. Usually it will be found that only the general hospital has a resident medical officer, consequently any severe cases in the others are obliged to be sent thither.

But they will all have matrons, more or less ignorant, and secretaries and rates and taxes and rent to pay, while the larger general hospital commonly pays no rent, because the site was either presented or bought at the time of its erection.

Collect these in different wards of one building, and

it is easy to see what a saving of expense will be effected, while then *all* the different varieties of patients will be protected by an efficient resident medical officer.

It may be argued, "That will be too much for one man to attend to." Granted; but we have a remedy for that.

Besides these hospitals there will also be found one or two dispensaries, each having an expensive establishment to keep up, and each blessed with a resident medical officer.

Dispensaries are held only by men who are looking out for something better, so they are continually changing their residents. These appointments are most uninteresting, for the practice is of the most wretched description; and when tired with his long rounds of visits, the resident has to dispense no end of medicine, and he has no society to enliven his cheerless home.

Is that fit for a man who has but lately finished an expensive course of training, and who has just left a large medical school, where he was surrounded by congenial friends? Combine the dispensaries with the hospitals in this way: don't bother a medical man with dispensing medicine—contract with a druggist in each district of the town to do that, and to provide a room in which the patients might be seen by the physicians at stated times.

All ordinary cases they would treat as out-patients, but severe cases they would send to the hospital, which might now be provided with *two* resident medical officers. This would be more comfortable for them, and a saving in expense to the town. At some places where this plan is already to a certain extent adopted, the only visiting analogous to dispensary visiting is done by the house-surgeons among bad cases waiting to come into

the house as soon as there is room; and they take it by turns to see in-patients and out-patients on alternate days, so that one is always in the hospital to receive accident-patients, who may come in at any moment.

Two house-surgeons can easily manage 300 in-patients, with the few out-patients we have mentioned; and the improved practice would be so inviting that it would attract far better men than those who drag out a weary existence at a dispensary.

Moreover, a hospital ought never to be left entirely without protection. One medical man ought always to be at hand for emergencies; and as there is such difficulty now in procuring medical pupils, the plan suggested ought to receive consideration.

If two men found the above work rather heavy for them, assistance could readily be obtained, at a very slight expense to the hospital.

We have elsewhere remarked (p. 21), that a certain number of students break down every year, and there are always some men who find London disagree with them, so that if they could finish their studies in a more congenial climate they would be very glad of the chance.

All the requisite lectures are over by the end of the third year; the fourth year is devoted to hospital practice and preparation for the last examination—all the others have been passed.

Now, though country hospitals are not medical schools, yet the practice of those which have 150 beds is recognised by all the examining boards. Very well; let them offer to appoint an assistant who, in return for his services, should receive no pay, but his board and lodging in the hospital, with the privilege of attending its practice free of charge. We have no doubt that numbers of

these delicate fourth-year men would jump at the offer, and thus the proper attendance on the patients by three men would not be irksome, as at present, but, on the contrary, would be cheerful, and therefore efficient as well as inexpensive.

The fourth-year student would thus have an opportunity of attending the requisite number of maternity cases in comfort, instead of groping his way at night through filthy slums to miserable dens in London.*

* Those who wish to know all about the construction and administration of hospitals are referred to the 'British and Foreign Medico-Chirurgical Review' for January and October 1866 (No. 73, p. 1-28, and No. 76, p. 371-397), which criticises the whole subject. No. 76 also contains (p. 471-473) a review on admitting patients.

CHAPTER VIII.

OUR OUT-PATIENTS—HOSPITAL ABUSES AND HOSPITAL REPORTS.

Division of labour by out-patient dressers—By out-patient clinical clerks—Very uninteresting—Muffles and bonnet-strings—Abuse of hospitals by out-patients—A nut for Mr Bright to crack—Cause of the abuse, and suggestions for its remedy—Governors' letters—Out-patients at hospitals and dispensaries—Annual reports at present mere balance-sheets, while they might be good statistics.

Now that we have told you what wards are like, we must let you know what the students do there. But stay—we forgot. A man does not get his in-patient appointments till after the out-patient ones. These may be dismissed in a few words, as it is impossible to take any interest in out-patients: they are all very well for *diagnosis* (*i.e.*, for finding out the disease), but you cannot in the least depend on the *treatment*, as you have no means of enforcing it.

You become first, as we said, out-patient dresser, and you meet your "Governor," an assistant-surgeon, on his days, say Monday, Wednesday, and Friday, in his room about 1 P.M., and attend his practice till about three. If he have four dressers, they will probably divide the duty in some such way as this:—

Mr A. will register, *i.e.*, write the names, etc., in a book kept for the purpose.

Mr B. will prescribe, *i.e.*, write the prescriptions dictated to him.

Mr C. will dress anything that requires such attention.

Mr D. will make himself generally useful, or will be away on leave.

The next day they change like artillerymen at gun-drill—A. takes B.'s duty, B. takes C.'s, and so on.

The patient comes in at one door and goes to Mr A. to be registered; this is done, and he receives a prescription-paper with his name written on it; then he goes to the doctor, who asks him a few questions, and dictates the name of the disease and the prescription; B. writes these, and passes the patient on with his paper to C.; C. puts on whatever dressing is ordered, and sends him out of the other door to get his medicine from the dispenser.

One soon grows very tired of this, for you get scarcely any interesting cases, and you are so glad when your six months of office have expired that you wonder how your "Governor," poor man, can go on with it year after year.

Then you become out-patient clinical clerk to an assistant-physician, and discharge similar duties for medical cases; but Mr C., the man who *dresses* for the surgeon, has to *undress* for the physician. That is to say, he has to get people ready for "auscultation," to examine various things they bring, and report on them. But the "undressing" is the most troublesome. Till you see them, you can scarcely believe how voluminously some men are enveloped in aprons, belts, straps,

comforters, chest-protectors, and other abominations. It is half an hour's work to get them unrigged and rigged up again. With the women the bonnet-strings are the greatest nuisance; they are constantly in the way, and their rustling is most distracting when you want to listen to their chest sounds. It is all the more annoying, because out-patients always come in such swarms that you can spare a very short time for each. Medical out-patients are only a degree more interesting than surgical, so that you pity the assistant-physician as much as the assistant-surgeon, and turn with a sense of relief to the in-patients.

Assistant-physicians and assistant-surgeons have, or ought to have, one or two beds apiece in the hospital, as a set-off to those tedious out-patients.

There is one fault that should be noticed common to all out-patients, whether surgical or medical; far too many men and women are for weeks and months out-patients at hospitals who could very well afford to pay for advice and medicine, if we may judge by the glossy cloth coats and the showy silks they wear. This is a most unjustifiable abuse of charity; but it would soon cease if every doctor were as independent and courageous as one eminent physician, who, when *he* had care of out-patients, used to astonish any smart woman whom he saw enter the room by calling her to the front of all the others, and catechising her in this strain :—

"Pray, ma'am, what is your husband's employment?"

"A mechanic, sir—a skilled mechanic." (That is the favourite answer.)

"And may I inquire what his wages are?"

"Three guineas a-week, sir." (Sometimes it is even more.)

"Just what I expected; more than a hundred and sixty pounds a-year, you see! Are you aware that an immense number of clergymen and other gentlemen have less than £160 a-year? Yet what would you say if the clergymen's wives were found coming to the hospital? Poor dear ladies, if they *did* come, I am sure they could not find all those smart silks that *you* come rustling in." Here they generally beat an ignominious retreat, at which—"Yes, you may well retire; but you must not go to some other hospital."

He would then turn to the students present, and remark, "But she *will* go, gentlemen, for all that, and her husband will consider she was very ill-used because we would not admit her here. Women of this stamp crowd into the maternity hospitals, and fleece those charities to even a greater extent than they do us, not with the connivance only, but also with the approbation of their husbands. And these knaves, gentlemen," the stanch old Tory would add, "are the model 'working-men' of that pugnacious 'friend' of theirs, the vociferous member for Birmingham!"

Abuses of this kind are owing to the flunkeyism which still pervades society in the British realms to such a degree, that really one would think we were totally destitute of such blessings as the 'Saturday Review,' to say nothing of 'Punch' and the 'Owl.' But, pshaw! we are doing these papers injustice. What "beadleocrat," to coin a word, as the anatomists do, ever craved any higher intellectual food than the daily bombastic pennyworth of 'Telegraph' or 'Star'?

It occurs thus: nearly all hospitals are supported by voluntary contributions, and the subscribers are named governors, because for a certain sum they can command

admission to the hospital for a stipulated number of patients. The so-called "report" of the hospital is "published" annually—that is to say, the "balance-sheet," with an alphabetical "list of governors," is sent to every subscriber.

Then *Mrs Smythe*, the wife of the grocer, who has just taken the business, gloats over it with the greatest satisfaction as she reflects how good a chance that gives *Mr Smythe* of being churchwarden next year, for his subscription enables him to send to the hospital nearly twice as many patients as *Mr Smith*, the bookseller, their neighbour both in the street and the alphabetical list. "Ah! won't that stuck-up Mrs Smith like having her husband turned out to make room for my Joe?"

So she soliloquises, and thus she dispenses her husband's patronage with conscious munificence, thanking God how much good she can do! Some hospitals will not receive any people for treatment, either as in-patients or out-patients, unless they have a "letter," which is short for "letter of admission," "letter of recommendation," or "governor's letter." This is a great hardship to many poor creatures who require in-door treatment; for towards the end of the year the letters of residents in the neighbourhood are all given away, and the poor sufferers have to trudge many a weary mile before they can find one, or have to crawl a long distance to a hospital where letters are not necessary.

These letters, as at present managed, are much abused, for mechanics' wives have no scruple in coaxing a tradesman's wife out of a hospital letter, either by flattering her benevolence, or by some other cajolery, and none but a most independent doctor can venture to reject any smart patient duly recommended; the disappointed

one would complain to her patron, her patron would be rendered by his wife so indignant, that he would stir up several influential customers, and these would raise such a hullaballoo at the next meeting of the hospital board that you would imagine the doctor had been guilty of cruelty instead of zeal in protecting the interests of the charity.

It must be admitted, however, that it is a serious burden to mechanics earning three guineas a-week if, with their present improvident habits, they have to buy their wives expensive medicine for three or four months at a time. In this instance, though an out-patient arrayed in silks is not a decorous spectacle, might it not be desirable to effect a compromise by offering to admit her if her husband became a governor? He need not be a permanent subscriber; if he were to subscribe for the current year that would be enough. Surely he could well afford the guinea or the two guineas if he chose; he himself could then "recommend" his wife for admission, injustice would thus be avoided, and self-respect would be gained by a "model working-man."

At the Royal Free Hospital no letters are required; but from what we have just said, it seems necessary to have some means of preserving charitable institutions from imposition. In-patients are subject to restraint which would be irksome to the offenders described; it is not in-patients who are to be suspected generally, but letters are required to keep down the numbers of out-patients, for they are a perfect pest, if only from the hordes in which they come to hospitals where letters are not so strenuously insisted upon for out-patients as for in-patients. Many of them have little or nothing the matter with them; they would not take any physic

if they had to pay for it; and if they had to go round the neighbourhood begging for out-patient letters, they would never take the trouble to do so. But when they have only to appear at the hospital and ask for medicine, it seems almost tempting them to imagine they want it.

These remarks apply also to dispensaries, where there are out-patients only. It would be impossible to abolish letters here, for the unfortunate resident medical officer must be protected—it will not do to goad a willing horse to death. As it is, he is almost walked off his legs every day in attending to those who have letters; but if he were at the beck and call of every one who had none, he would soon be "kilt intirely," as Paddy says.

Our want is "more in-patients and fewer out-patients." Among out-patients you meet with scores whose complaints are so vague that it is impossible to give them the name of *any* particular disease. When you go into practice you have swarms of such cases, and as they get well with *any* treatment, or *no* treatment at all, you will not do much harm among them, even if you do make a mistake in your diagnosis now and then.

So what is the use of hospitals with medical schools attached, wasting money about such crowds of out-patients? Sift them; despatch all the best to the hospitals, and keep all the trivial cases for the dispensaries. Then the hospitals could spare more money for in-patients, and could afford more facilities for admitting them.

Students want more "good cases"—*i.e.*, severe and rare cases—among the in-patients; for as they will not often meet with them in private practice, it is important

that they should have seen as many as possible in their hospital career, so that they may at once recognise and treat properly dangerous maladies when they *do* occur.

These remarks may at the first glance seem selfish, but on reflection we hope it will be considered that we only aim at making young medical men more familiar with disease by the time they "pass," and therefore better guardians of the public health. We wish to carry out practically what every one desires theoretically—to expend the funds so willingly contributed by "Mr John Bull" in such a manner as to procure the greatest possible benefit to the greatest possible number.

But if you are one of those who consider out-patients are of some use at hospitals, pray let them be better looked after. How can one man do justice to sixty or seventy patients in two hours (1 to 3 P.M. is the usual time), thus giving on an average less than two minutes to each case? We are sure those who preside over the out-patient rooms will admit that we are strictly within the mark in giving these numbers for the daily attendance at certain seasons. Well, give the patients a better chance, and make the doctors' task less laborious by increasing the number of assistant-physicians and assistant-surgeons; have eight of each instead of four—they receive no pay, so there will be no additional cost.

Let them come to the hospital twice instead of three times a-week, and if there are a few out-patients—very few they will be—who require to be seen oftener, let them be seen by the resident medical officers: what is the good of having such officials if you cannot employ them to lighten the labours of the regular staff? If they should be a little fagged now and then it would

not signify, for they hold office only six months, and the twice-a-week attendance would save the poor out-patient doctor one-third of his present uninteresting drudgery.

To insure the right application of the hospital or dispensary funds, it is a pity that all the letters are not handed over by subscribers to the clergy of the district, whether Anglican or otherwise; for as they are continually among the poor, they would take care that the most deserving applicants had the letters first, not the most sturdy beggars.

But no, people will *not* do that; many even who are superior to the petty tradespeople above mentioned, and who ought therefore to know better, will dispense their patronage in their own clumsy manner, and fancy they meet all your remonstrances in the most satisfactory way by exclaiming, "*Why, that's all I have to see for my money;* that and the annual report!" If something worth their money is all they want, it might be provided very easily. Let the "report" be something more than a "balance-sheet;" let the balance-sheet and list of subscribers be mere incidentals; let the report be essentially a valuable addition to the annual statistics, by containing an analysed table of the diseases, carefully compiled from the register. How is it that the vast field of clinical observation afforded by the numerous hospitals of the kingdom has been so comparatively unreaped, in spite of the continual efforts of the useful and energetic Statistical Society? It is true that the medical papers are constantly publishing cases, both singly and in groups, and the "Transactions" of the various medical societies are valuable contributions to science; but few hospitals, either in town or country,

publish as a matter of course an official annual report of their general practice.

What is urged is, that every hospital in the kingdom should turn its advantages to account by publishing annually a classification, on Miss Nightingale's plan, of the diseases treated in its wards during the year preceding (out-patients are not worth the trouble), with short notes where necessary, and in important cases illustrations. Each hospital would vie with the others in producing the best report; and it appears to us that *trustworthy* statistics might thus be obtained which would materially forward our knowledge of hygiène and therapeutics, two sciences still in their infancy.

Would not *that* be *something* for subscribers *to see for their money?* And if *that* is not what hospitals have always aimed at in a vague sort of way, pray what is the use of the elaborate system of registration of patients that everywhere prevails? And have the "case-books" fulfilled their last duty when they have furnished apt illustrations for a clinical lecture? Is this the sole reason why physicians and surgeons are so anxious to preserve the notes of a discriminating "case-taker"?

But what is every one's business is proverbially no one's business; and as a good report would cost a great deal of time, trouble, and expense, of course no one cares to take up a thing which not only would not pay, but would most likely leave the reporter out of pocket. Let any enterprising hospital guarantee the expense of publishing the report, and offer a moderate but sufficient remuneration to the compiler, and we are sure there would be no difficulty in finding a competent man for the purpose.

CHAPTER IX.

OUR IN-PATIENTS.

Allotment of patients to students—Irish patients—Classification of diseases—The visits—"Conservative surgery"—Operations—Chloroform—Students' faces at operations—Captain Grant—Stretchers—Medical cases—Classification of diseases—Chest and heart sounds—Favourite diseases of different physicians—"An interesting P.M."—Relatives at "P.M.'s"—Rokitansky of Vienna—"A swell diagnosis" A "broken heart"—A lecturer at home.

We will now enter the wards and show you what men do when they have arrived at the most interesting stage of their medical studies, and are enjoying their in-patient appointments. Still proceeding from the easier to the more difficult duty, the student becomes first in-patient *dresser*. Each surgeon has generally three dressers, who share the *patients* among themselves, not the *duties*, as in the out-patient room. According to the days of his "Governor's" visits, A. will have all the cases that come in on Monday, B. those on Wednesday, and C. those on Friday; or they will "take in" by turns, each man having all the patients who come in during his week, and at some places where this plan prevails he has free quarters and rations in the hospital during his "week's take-in."

No one complains now of want of interest or variety in the diseases, for their name is legion ; in fact, they seem as if they might be classified in the same way as the Russian generals in "Napoleon's March to Moscow:"—

Necrosis and anchylosis,
And all the rest that end in "osis ;"
Sarcoma and enchondroma,
And all the rest that end in "oma."

Each case is entered in the "case-book," not forgetting the index if you wish to save trouble, short notes being made of the "present symptoms," and of the antecedent course of the disease, for which the ambitious word "history" is the favourite term.

The dresser visits his patients every morning at the same hour as the house-surgeon, so that he may appeal to superior knowledge if in any difficulty. It is not safe to say at what time the visit begins, for punctuality is not a favourite virtue with a fourth-year man, now rejoicing in his escape from early lectures, especially "that confounded anatomy at nine o'clock, with the theatre freezing." However, if the dressing and case-taking be all despatched before the patients' dinner, no harm is done; they do not mind waiting half an hour or so for a kind man with a pleasant smile and a merry joke when he does come. If he take pains with them all will be right, and his trouble will be not only appreciated but applauded by some amusing Irish patient, whose impulsive gratitude is sometimes quite touching. "God bliss ye, docthor; ye've a noice loight hand!" is a common enough form of thanks with these affectionate people.

A joke with them is often as efficacious as medicine.

An ugly old woman who believed she had pain in every part of her frame, one day exclaimed to us, "Docthor, docthor, I shall die!" and as that is the first line of an old song, we could not help completing the couplet by replying, "Yes, pretty maid, and so shall I!"*

This so tickled her fancy that she soon forgot to talk about her various aches and pains, accordingly she rapidly improved.

They sometimes describe their symptoms in a most amusing way. A "Paddy" was admitted for facial paralysis, and he told us the right side of his face had "gone all wrong," but the left side still remained "illigant intirely!"

Another came and said, "Ah, docthor! I'm kilt intirely!"

"Musha, Paddy, how are ye kilt?"

"Oh, bedad, I've got half-a-dozen toothaches in me side!"

What a graphic description is this of rheumatism in the intercostal muscles!

N.B.—We always try to speak Irish to them; it pays very well while they are alive, but no amount of blarney is enough to get a P.M. on a dead Irish patient allowed by the surviving friends.

Say dinner will be at half-past twelve; that gives ample time for the ward to be settled again, and for the dresser to lunch and look at the paper before the surgeon's visit at half-past one. A popular physician or surgeon going round to make his visit always reminds us of a Highland chief "with his tail on;" he

* This is the only good couplet in the whole song, so we will not trouble our readers with the remainder.

has the house-physician or the house-surgeon for his "henchman," the clinical clerks or the dressers for his "foresters," and a long string of other students for his "guard of honour."

You would fancy, perhaps, that the patients would be much annoyed at having a rabble of thirty or forty men trudging after their doctor, and crowding round their beds to examine everything, as a matter of course; but no, they like to feel themselves of so much importance, and even women scarcely ever care about greater privacy. An old lady once declared she "liked to see their cheery young faces all peering at her." We have often wondered the trampling is not distracting, but no one ever complained of it to us.

Mr Arnold Cooley, the well-known author, has described his experience of hospital life in a little book called 'Three Months in a Hospital.'

This gentleman was very severely injured by being run over in the street by an omnibus, and he very sensibly caused himself to be taken to the nearest hospital. He describes his sufferings very graphically, and he seems to be quite a monument of surgery; but it is to be regretted that he has devoted so much space to the psychology of delirium, and comparatively so little to the opinions of hospital life expressed by his fellow-patients. Perhaps he will supply this defect in a future edition.

Mr Cooley complains of the apathy exhibited by the bystanders when he met with his accident, especially by the driver and conductor of the omnibus which ran over him; and we have often observed the same brutal neglect in street accidents which we have ourselves witnessed. People stood still and stared, but did

nothing except inquire for the police; they seemed astonished at any one else offering assistance, but made way for us at once when we exclaimed "Make way, please, for a doctor," and seemed to think it natural for us to take the patient under our protection till we could send him to the nearest hospital.

The police take good care of helpless patients picked up in the street; they take them at once to the hospital, and if the sufferers have no money, they themselves pay for the cab. They are reimbursed by the Chief Commissioner of Police, Sir Richard Mayne, who pays their expenses when they make a claim on the "Police Fund," which is kept up for this and similar purposes by the fines inflicted in the ordinary police-courts.

Mr Cooley's case is a good example of the disastrous effect of the mismanagement of street traffic which prevails in London. The Registrar-General's returns prove that from 800 to 1000 people die annually from the effects of injuries received in the streets of the metropolis! How many more innocent people are to be maimed and killed before the long-desired Ædile is appointed to control our ill-governed capital? How long will Parliament permit a population of nearly four millions to be at the mercy of lord mayors, vestrymen, and other incapables? When will it prove to John Bull that his bugbear "centralisation" is a mere phantom of his own creation, and that the proposal to put London under the authority of a minister responsible to the Crown is not a surrender of the keys of the city to a foreign invader?

The surgeon's visit is an event both to patient and student; it cheers up the one and puts the other on his

mettle, for if suddenly asked, "Mr ——, what causes the stiffness in this joint?" it is satisfactory to reply without hesitation, "The effusion, sir;" especially if a man at your elbow heaves a sigh of relief, and whispers, "By George, I'm glad you knew, for I couldn't have told him if he had passed on the question to me!"

Once a-week the surgeon's visit is shorter than on the other days, for it is preceded by "operations," which have the same fascination for some men that dissection has for others; and when the surgeon is what is called a "brilliant operator," the operating theatre is often crowded with students and visitors, many of them military surgeons.

"Oh! I should hate to be a surgeon, and have to cut off arms and legs!" is the frequent exclamation of many when they hear a young friend has determined to be a doctor. Amputations undoubtedly possess the greatest attraction for a tyro, but they are now, thanks to chloroform,* far less common than formerly, owing to the rapid advance of "Conservative" surgery, which, strange as it may appear, takes the most "Liberal" view of any innovation which promises to effect a "Radical" cure without weakening the "Constitution," by any such violent "organic change" as the sacrifice of a limb.

Amputations are managed very methodically; and as all other operations vary only in minor details, we may as well describe the arrangement:—

Perfect silence is kept throughout the whole pro-

* Chloroform is often called by hospital patients "Californy." Who would not give all the gold of California to obtain freedom from pain?

ceeding, and is indispensable. The patient is laid on the operating table and made as comfortable as possible; one of the house-physicians or house-accoucheurs then advances and administers chloroform. But if we were allowed, we would always give it before bringing the patient into the theatre, thus saving time and not frightening him by the sight of so many spectators. The quantity expended varies greatly with the skill of the administrator, but the amount wasted by evaporation is far greater than the amount inhaled. If the chloroform be merely shaken out of an ordinary bottle upon a folded handkerchief, four to six drachms (*i.e.*, teaspoonfuls) will be enough to make the patient unconscious throughout the amputation of a leg by an average surgeon; but if dropped from a minim pipette (which passes through the cork of the bottle) upon Dr Skinner's "dome" of flannel, two drachms will suffice.

Chloroform is perfectly safe if its vapour be sufficiently diluted with air, and Dr Skinner's plan is safe enough for all practical purposes; but at University College Hospital Mr Clover's new method is sometimes used, and is said to be "absolutely safe." Its merit consists in restricting the proportion of chloroform vapour to 3 per cent of the air inhaled; but it often takes a very long time to get the patient under the influence of the anæsthetic, so Dr Skinner's plan is preferred.

The drawing-room toy, the "atmospheric odorator," has lately been turned to account by Dr Richardson. He applies the spray of ether to the surface, and produces sufficient insensibility for the performance of minor operations without pain.

The three dressers divide the duties thus :—A., to whom the patient belongs, holds the leg which is to be removed, B. hands the instruments and C. the sponges; when it is cut off, A. hands the dressings; any one standing near holds the patient's other limbs; the assistant-surgeon compresses the main artery of the doomed leg with his hands or with a tourniquet, and prepares to "retract the flaps" of flesh as soon as the operator has cut them, while the house-surgeon makes himself generally useful.

The operation is soon over, the vessels are all tied with "ligatures," the dressings applied, and the patient settled in bed in twenty minutes from the time the chloroform was taken.

At the sight of blood flowing the novice often feels quite faint, even though he be a strong man, but after the first few times he gets used to it. When a painful examination of a patient is being made, or when an operation is being performed in a case where it is inexpedient for some reason to give chloroform, the faces not only of freshmen but of old students, and even of many surgeons, become perfect studies; for sympathetically, though quite unconsciously, their features work about with the same quivering expression that is marked on the countenance of the poor writhing patient. Similarly in the medical wards, the students may be observed to cough sympathetically with the patients; and in the ophthalmic wards they can scarcely refrain from lacrymation when they first begin to attend the oculist's practice, for nothing looks more painful than inflamed eyes.

When chloroform is given the patient's face is at rest, and so is theirs. Patients under choloroform are apt to

betray secrets, and especially prone to continue the conversation they have just been holding, therefore it is as well to give it in silence, for though their unconscious remarks are often amusing, they are seldom edifying.

Captain Grant, the African explorer, went once with a friend to see Sir William Fergusson operate at King's College Hospital, and he was so much affected by the sight that he was obliged to leave the theatre; yet when his own finger was so lacerated that it was doomed to amputation, he calmly held it out and had it cut off without chloroform. When the patient is removed the surgeon makes a section of the diseased part, exhibits it, and offers a few clinical remarks on it; he then washes his hands, and goes on to the next case.

The removal of patients from the operating theatre back to bed is very clumsily performed at some places. At our hospital the following plan is adopted: One of the sheets on the operating table is made of strong canvas, and has a very wide hem at each of the *long* sides; a pole is pushed through each hem as soon as the operation is over; two porters then take hold of the poles, lift the patient, march off with him, deposit him on his bed, sheet and all, and then withdraw the poles. The patient has not been touched at all; he has been lying quietly slung in a comfortable sort of hammock, his head supported by a pillow, and the sides of his litter kept at a proper level and distance by two movable connecting-rods between the poles.

The physician has no such opportunity of displaying to a large admiring audience a manual dexterity that wins the *éclat* which is so dear to the surgeon; but when the dresser has become in-patient clinical clerk, he finds that the "tactus eruditus," the "edu-

cated touch," is even more highly cultivated in the medical than in the surgical wards.

"Isolating a tumour by palpation," he will discover, was mere child's play compared with "defining the area of dulness" in obscure internal diseases; and the marvellous skill of some physicians in "percussion" and "auscultation" will astonish him far more than lithotomy performed in two minutes.

A man soon tires of plastering and bandaging, but it will be long before his interest flags in making diagnoses in cases of

Bronchitis, pericarditis,
And all the rest that end in "itis;"
Emphysema, empyema,
And all the rest that end in "ema."

The longer he remains in the wards the greater delight he feels in exploring the meaning and value of the "chest sounds" and "heart sounds" which come rustling to his ear through the stethoscope, that useful instrument which some wag has called "a thing to hear what you are thinking about."

These sounds are described by almost as many terms as Southey uses when he tells us "How the waters come down at Lodore," for they are said to be

loud or low,
clear or faint,
near or distant,
dry or moist,
resonant or dull,
harsh, rough, and brassy, or
soft, whiffing, and blowing,
prolonged or jerky,
rhythmical or confused,
accentuated or muffled,
deep or shallow,

husky and hoarse, or stertorous and snoring,
sonorous or shrill,
piping or purring,
chicking or whispering,
booming or murmuring,
cavernous and amphoric, or
tympanitic and tinkling,
creaking or croaking,
splashing or whizzing,
crackling or humming,

rattling or cooing,	hissing or buzzing,
squeaking or bubbling,	gurgling or wheezing,
clanging or bleating,	rasping or grazing,
snapping or whistling,	vibrating and regurgitating, or
chirping or grunting,	shivering and quivering.

These various sounds have an immense interest for a clinical clerk when he has "taken a case" in the "case-book" so well that his physician compliments him on his accurate observations by the bedside, and promises to read the notes when bringing forward the case at the "Medico-Chi.;" and he finds himself declaring he has "learned more during the months he has 'clerked' for Dr So-and-so than he did all the time he was at the hospital previously."

It is amusing to see how different subjects engross the attention of different physicians, and the clerks of course take after their respective masters. One man is eager only after "diagnosis" and the "physical signs;" another is mad about "chemical and microscopical analysis" of the secretions; a third scarcely looks at any but "nervous diseases;" a fourth is enthusiastic about the "larynx and the laryngoscope;" a fifth gives his whole time to "Bright's* disease;" while a sixth cares for nothing but "treatment." His forte lies in "therapeutics," and he listens quite languidly to the reading of the notes until he hears the magic words "since taking the medicine," which are always judiciously introduced by the sly clinical clerk.

* *N.B.*—"Bright's disease" does not mean "working-man-ism" or "demagogue fever," but a very interesting disease of the kidney, first described by the late Dr Richard Bright, who, singularly enough, himself died of this malady. He was one of the greatest physicians who ever lived. Dr Bright was lecturer on medicine and physician to Guy's Hospital.

The house-physician and the clinical clerks see the medical cases at the same time that the house-surgeon and the dressers are visiting the surgical patients; and if the dressers are delighted at the prospect of a "brilliant operation," the clinical clerks are just as much attracted to an "interesting P.M."

It is to be regretted that so many obstacles are put in the way of the scientific investigation of disease by the absurd dislike people have to allow post-mortem examinations of their poor dead unconscious friends.

According to the prevailing etiquette of the profession, no "P.M." is made in hospitals without the permission of the friends of the deceased, so many a good case is utterly wasted. Sometimes when permission *is* given, the family will send a representative to look on, and you may see men with the most scandalous defiance of decency insisting on being present at the examination of their parents, brothers, or sisters, sometimes even passing their remarks on what is done.

One revolting case we remember of a Scotchman who *would* come to the P.M. on his father, and when the head was opened a student exclaimed, "What a splendid specimen!"

"Specimen of what?" he asked.

"Of apoplexy."

"Ah, I thought so; the old boy got drunk on New Year's day, and he never spoke again."

At the great Imperial Hospital of Vienna it is a law that every patient who dies there shall be examined. The result is Rokitansky's magnificent work on Pathology. Why cannot our hospitals at home make the same regulations? It seems hardly fair that when patients have every attention lavished on them without

any cost to themselves during life, they should deny us the satisfaction of doing what we like after they are dead, and can feel nothing, and will soon be a mass of putrefaction. It has been suggested that every one should have his own medical history during life written by his medical attendants, and then leave word that an "autopsy," or "inspection of himself," should be performed after death. No doubt some curious facts would thus be brought to light.

But we will not enter that ghastly "P.M. theatre" to-day; we will wait till the specimen is brought to-morrow into the operating theatre to form the subject of a clinical lecture.

To-morrow comes, and the worthy physician of the case is radiant with pleasure—not because the poor patient has died, gentle reader, but because he has made a "swell diagnosis," which has been completely "verified by the P.M."

The clinical clerk reads the notes. The poor woman fell and fainted while she was running along *very fast* (curiously enough, in *Fleet* Street), and "was brought to the hospital in the following condition." Here the symptoms are described, and the queer sounds dwelt upon which led to the startling diagnosis, that she had "ruptured one or more of the chordæ tendineæ," or, in plain English, "broken her heart-strings." Young ladies of course will think they have often heard of people dying of a "broken heart," though dull, matter-of-fact persons may pooh-pooh the idea; but such cases *do* occur sometimes, and every hospital has specimens of them in its museum.

Do not think this physician a hard-hearted man because he was "glad to find the chords *were* broken;" he

only meant to say he was glad he was right. He is not a bloodthirsty wretch, he is one of the kindest doctors we know, and if you call upon him you may find he has many accomplishments which you would scarcely expect. Would you not be surprised to find a grave lecturer, who seems quite a walking cyclopædia of knowledge at the hospital, unbending at home to be his children's playfellow? Yet such a one we once caught in the act of fiddling to his children on a rainy day because they could not go out, so papa pushed the table aside, sat down on it, and fiddled away till the youngsters were out of breath with dancing!

Then he took a piece of paper, and drew knights, and horses, and arms, and the queen of beauty, until they knew all about a tournament! There's a model papa for you! Yet who would ever suspect him of this who had never seen him draw anything but chalk diagrams on the black-board, or those queer red-and-black water-colour smudges which are the delight of all oculists?

Note on "Broken Hearts," Chapter IX.

Let it not be considered irrelevant or irreverent if we mention here the explanation which has been given of our Lord's death on the cross occurring so long before that of the thieves. In 1847 Dr Stroud published a book 'On the Physical Cause of the Death of Christ,' in which he commented upon that solemn event as described by St John (xix. 32-36): "Then came the soldiers, and brake the legs of the first [thief], and of the other which was crucified with him. But when they came to Jesus, and saw that He was dead already, they brake not His legs: but one of the soldiers with a spear pierced His side, and forthwith came there out *blood and water*. And he that saw it [St John] bare record, and his record is true: and he knoweth that he saith true, that ye might believe. *For these things were done, that the scripture should be fulfilled.*" Our Lord after His resurrection confirmed this testimony, for He said (Luke xxiv. 44), "These are the words which I spake unto you, while I

was yet with you, that *all things must be fulfilled which are written in the law of Moses, and in the prophets, and in the psalms, concerning me.*" Now, what say the Psalms? Psalm xxii. 15 to 18, says, "My tongue cleaveth to my jaws. . . . They pierced my hands and my feet. . . . They part my garments among them, and cast lots upon my vesture." Psalm lxix. 21, says, "In my thirst they gave me vinegar to drink." All these are held (see Luke xxiv. 44) to be distinct and literal prophecies of what is related in John xix. 23, 24, 28, 29. "Therefore," argues Dr Stroud, "why should we not consider verse 14 of Psalm xxii. and verse 20 of Psalm lxix. also as literal prophecies?" "My heart is like wax; it is melted in the midst of my bowels." And "*Reproach hath broken my heart, and I am full of heaviness.*" Dr Stroud then gives some well-authenticated cases of rupture of the heart from excessive emotion both of joy and grief, and applies the analogy to our Lord. "Our Saviour was not only 'a man of sorrows, and acquainted with grief,' but He was prostrated by recent exhausting physical exertion. From the cases quoted, this combination appears quite enough to cause death by rupture of the heart. This supposition is supported by prophecy, and confirmed by the soldier's rude post-mortem examination. At the spear-thrust *forthwith came there out blood and water.* The heart had ruptured from emotion, blood was effused into the pericardium or sheath of the heart, and separated as usual into the *crassamentum*, or clotted corpuscles, and the *serum*, or watery constituents, the *blood and water* of the evangelist, which flowed when the spear pierced the pericardium." The Rev. Dr Hanna, in his book on 'The Last Days of our Lord's Passion,' mentions that many eminent medical men have adopted Dr Stroud's view, and cites the names of Sir James Simpson of Edinburgh, Professor Struthers of Aberdeen, Drs James Begbie, Russell, Edwards, Rainbach, and others.

CHAPTER X.

MEDICAL STUDENTS' LEISURE HOURS.

Our Medical Society—Amusements—Clergymen's sons—Visits to the learned societies — Our "ancestors" — The Darwinian theory—Warning to male flirts—Out-door amusements—The value of Sunday—Students' politics—London and Cambridge life contrasted—Resident medical officers in hospital—Egyptian students—"Putting his foot in it"—Nox Utopiana—A student's song.

If you want to know what good hospital practice does for us students, you cannot do better than come one evening to see what enthusiastic professional ardour we exhibit at the meeting of our Medical Society, which is conducted in the same way as the great medical societies, of which the Royal Medico-Chirurgical is the chief. We meet in the library or the board-room once a-week to hear a paper read of which notice has been given beforehand; and some men make the most of their half-guinea subscription by consuming an amount of coffee and cake which seems likely to produce nightmare, especially as at some places it comes after the meeting instead of before it.

The president is in some societies one of the students, at others a man who has passed; and we think the latter the better plan, for a passed man has naturally more weight as chairman.

Once a-month, before the meeting of the society, the executive committee holds a meeting to transact any private business there may be, which is thus soon despatched without trouble. Well, at 8 P.M. the president takes the chair, supported on one side by a vice-president and one honorary secretary, and on the other by the paper-reader and the other honorary secretary. The secretary whose turn it was to take notes last time reads the minutes of the last meeting; the president then blandly inquires, "Gentlemen, is it your pleasure that these minutes be confirmed?" We signify our assent by tapping with our fingers gently and gravely on the table, and he affixes his signature; the paper-reader then begins, while the attendance-book is handed round for all present to insert their names.

Once a-month there is a "clinical meeting," that is to say, there is no formal paper appointed to be read, but any member who chooses may exhibit pathological specimens, and read interesting cases which have occurred in the hospital. This is an excellent plan, for we have observed that men who do not speak well or do not speak at all at ordinary meetings, often come out very well at clinical meetings; it likewise prevents the former from being protracted too long by a "communication" of this sort coming before the paper, and as it reduces the number of formal papers to be read in the session, it becomes easier for the secretaries to select men who are likely to read *good* papers.

The paper is over in about half-an-hour, and the reader sits down amid loud applause; the president then compliments him on his essay, and yet insidiously lets fall hints for members to catch up and throw in

his teeth, when they try to pull him to pieces in the discussion which ensues.

Lord Bacon tells us "reading maketh a full man, writing an exact man, and speaking a ready man," but really you would be inclined to doubt it sometimes, or at all events you would think no one but the president had ever been at a meeting before; the members at first seem anything but "ready" at speaking. Now and then, if the men have been lazy and have not read up the subject, we have known several minutes elapse after the president has ceased to speak before any one has said a word. Such an embarrassing silence is very mysterious, and if you are a stranger or a tyro you cannot understand it. Stay a moment; it will not last much longer. See that man with an amused expression on his face; he evidently thinks he has given his betters—the vice-president, the secretaries, the strangers, and the passed men—quite time enough to find their tongues. He seems quite tired of drawing their caricatures on the paper before him, so presently he stands up and attracts all eyes to himself by blurting out, "Mr President and Gentlemen!" Here he pauses; he has certainly forgotten Lord Brougham's advice, "Always have some well-rounded sentence to begin with." Ah! so we thought—after a little more blushing and humming and hawing, out he comes with one of the most angular words you ever heard. Never mind, he has relieved his feelings now, so he rattles away with a long list of objections that brings down the poor paper-reader several degrees in your estimation, as, of course, you never for a moment suspect they may *both* be right,—or both be wrong! Right or wrong, he has gained his point. He has started the debate, which continues for about

an hour, and then the meeting terminates, satisfied that it has not "lost a day."

Many men declare they have found the value of reading for these societies when they have been up for examination, and our weekly gatherings are far more interesting than the meetings of pathological societies in the country. If you go to them in the vacations you are disgusted at their dulness, and you shudder at the thought, "Good heavens! when I am a country doctor, shall I become a slow-coach like these old fogies? If so, Dr Jenner (vaccination Jenner) speaks truly when he says—

> "'Unhappy he whom fate doth urge on
> To practise as a country surgeon.'"

The medical societies of the various hospitals are associated into a "union," called the "Junior Medical Society of London."* It meets every third Tuesday at each medical school in turn, and its proceedings are precisely similar to those which we have just described, the chair being taken by the president of the society in whose rooms the meeting is held.

On evenings when there is no medical meeting, and yet he does not feel inclined to work, the student in London has plenty of resources, except the best of all —society.

Of course he is as fond of amusement as any other ordinary mortal, and like most people of small means, he enjoys it as cheaply as he can. The theatres have a

* The Union includes the societies of Charing Cross, Guy's, King's College, St George's, St Thomas's, University College, and Westminster Hospitals. Why the others have not joined is better known to themselves than to the author.

great attraction for him, all the stronger because he knows that after his London career he will most probably have no chance of visiting them; and if he avoids excess in refreshments he cannot well have a cheaper amusement.

But every theatre except the lecture-theatre is generally forbidden fruit to a reading man, in spite of, or rather in consequence of, its fascinations; especially if, like ourselves, he decidedly prefers the opera to the British stage in its present condition, and has a particular objection to any seat but a stall.

A few men affect the free-and-easy mixture of the concert-room with the tavern, which is the essence of the rapidly multiplying music-halls, but they are a small minority; and only a very very few nowadays can be found to speak of cider-cellars, *poses plastiques*, and so forth, in any terms but those of the most unmitigated disgust.

It was a taste for these last which brought such reproach on former generations of medical students, but happily it has now *all but* died out. We wish we could say *quite* died out; but in every profession, nay, in every family, there will generally be found *some* black sheep.

According to the experience each has had, you may hear one materfamilias imploring another on no account to think of sending her sons into the army, the navy, the church, the legal or the medical professions in all their branches, "for they meet with such temptations, and such unscrupulous companions, that they are *sure to be ruined*."

It is all very well to talk thus, but if we examine carefully, we find the number of the "ruined" is very

small compared with that of those who succeed like their neighbours, and moreover most people can mention instances of young men being "ruined" who have never left their native place, and of some even who have never been let loose from leading-strings; in fact, if a man be inclined to vice, he will fall into vicious habits under any circumstances, and it is only where large numbers of men are collected together that the startling cases become sufficiently numerous to give a bad name to the place, the society, or the profession, as the case may be.

Those who are preparing for the Army, the Bar, and the Church, need not be considered either more or less likely to furnish a given number of "ruined" men than their former schoolfellows who are preparing to be Doctors, Engineers, or Farmers, or to follow any other profession which you may mention by enumerating every occupation in alphabetical order.

What a man may turn out to be depends not upon his profession but on himself, and his power of resisting temptations, which are always present to him and the whole world besides.

As at Cambridge, a college may in successive years be considered a reading college, a boating college, and a fast college, though the dons are unchanged; so in London a hospital may have successively a steady, a slow, and a fast set of men, without any change in the lecturers. The booksellers in town have a curious gauge of the standard of "velocity" of any hospital—the "faster" the students, the more rapidly and cheaply do they sell their books to the second-hand dealers.

It is no disgrace, however, to sell books at the proper time; when one has passed, he naturally gets rid of

his elementary books, exchanging them for others on more advanced subjects, but a first-year man has no business to do anything of the kind.

It is rather curious to find that the sons of clergymen of *all* denominations are generally the fastest men you know. We have observed it in London as well as at Cambridge; and men of our acquaintance who have been at Oxford, Dublin, Edinburgh, St Andrews, and Glasgow, all declare they observed the same thing everywhere, no matter whether they were studying divinity, law, medicine, classics, mathematics, or natural science. So perhaps there is some truth in the opinion of certain psychologists who believe there is a natural antagonism between alternate generations.

Happily these prodigals settle down steadily about their third year, and it is time they should subside if they mean to pass. There must be something peculiar in clergymen's families, for all these fellows seem to have the Bible at their finger-ends, and quote it with the greatest volubility on every occasion, or rather when there is no occasion; and we laymen's sons were never more shocked than when one of them adapted a ribald song to the tune of the Old Hundred, and *vice versâ*. He was without doubt a "jolly dog," but now he has developed into a respectable "general practitioner"—thanks, we believe, to his falling in love, and not being rejected.

If a man do not care for, or cannot afford, theatres and similar entertainments, he will on leisure evenings probably go the round of the learned societies, to which he may be introduced by one or other of his lecturers.

Let us accompany him, or hear what he says about them afterwards. We begin, of course, with the "Royal

Society," which numbers among its Fellows the most distinguished men of the day. The Society meets in a large room at Burlington House, well lighted, and furnished with benches rising in tiers one above another. Here the student sits on cushions, an unknown luxury in his own theatre, and stares at all the celebrities which are pointed out to him by his introducer, feeling far more at his ease than when he sits in the same seat writing at examinations held in the same room by the University of London. He comes with the expectation of hearing some new discovery, even if some one only aspire to tell the world he has discovered that "the attraction of the tip of a man's nose to the ends of his toes is inversely as the square of the distance," and most likely he will not be disappointed; for a new "discovery" is here made every week, as regularly as a revolution occurs in Spain every two or three months.

So he stares at the discoverers, and listens to the discoveries as complacently as if he were an Exeter Hall devotee gazing at Lord Shaftesbury, but of course it would be sheer presumption for a mere student to pretend to understand them. Why, bless you, even the Fellows themselves very often don't understand one another till they have had the paper all to themselves with both elbows on the table!

Another night our student may go to "The Royal Medico-Chirurgical Society," usually apocopated to the "Medico-Chi.," which holds to all medical societies the same position that the "Royal" occupies to the learned societies in general.

Here he may be much amused to see one of his own lecturers get up and read a paper on a pathological specimen which formed the subject of a clinical lecture

last week; but in this place he finds his respected instructor does not get his own way with it quite so easily as in his own theatre.

Again he may visit the "Chemical Society," and hear the sapient Fellows talk about the properties of Stanntetrethyle, or trimethylamine, or hydrate of ethylene-hexethyl-biammonium, or a few more curiosities of this sort.

Their deliberations will no doubt convince him what gigantic strides chemistry has made in advance since the days of Boyle, whose sonorous epitaph tells us he was "the father of chemistry, and the brother of the Earl of Cork"!

Some other time he may visit the "Linnæan Society," and hear a paper on the "Rete Mirabile, or wonderful net of arteries in the arms of the Lemur," or an essay on "Marine plants found on high mountain-ranges far removed from the sea."

These the learned Fellow insists must be due to the abundance of ozone in the air at those altitudes; don't you agree with him? Of course you do; everything we don't understand is by common consent referred to ozone, the glacier theory, electricity, or the Gulf-stream.

Another visit may be paid to the "Anthropological Society," and you are horrified to be informed that cannibalism was originally the universal custom, and that probably the Ten Lost Tribes of Israel may be thus accounted for. Whether they ate one another, like the Kilkenny cats, or whether they were devoured by the Assyrians, the evidence deponeth not.

At the "Geological Society," you may find its learned members engaged in playing "clubs;" that is to say, you might think so if you have ever played at that dull

jeu innocent. The bit of stone, as you would call it, before them, has worried a good many of them. "Is it mineral? Is it vegetable? Is it animal?" To your astonishment it is declared to be *animal* remains. "Dear me, what *animal* can it be?"

Well, it is called "Eozoon Canadense," for it is found in some eocene strata in Canada, and is a most interesting specimen, for it is believed to be the earliest form of animal life.

It is a sort of grandfather, or grand*mother* perhaps, to the infusorial animalcules you see through microscopes at a *conversazione;* and if you are a believer in the Darwinian theory, you must allow that it is the ancestor of the noble "Sarcode" family of the sponges; and if of the sponges, then why not also of those other queer gelatinous animals, the far more wonderful jelly-fishes? and if of the jelly-fishes, then why not of the star-fish? and if of the star-fish, why not of shell-fish, and other sorts of fish, and so on, even up to man himself?

Surely there must be some truth in the theory, for do we not all know cold-blooded people who bear such evident traces of their descent that, by common consent, they are called "cool fish," "queer fish," or "loose fish," and some are even stigmatised as *sponges?*

The "Epidemiological" is said to be one of the most useful societies in town, but we are sure it is also one of the most alarming.

We have become so used to "the plague" (for typhus fever is only a modified form of "plague"), autumnal fever, enteric fever, scarlatina, and other everyday epidemics, that we pay no attention to them unless there is a more severe outbreak than usual. In that case, we get frightened out of our wits, declare such a state of things is

intolerable, and—write to the 'Times.' Having thus done our duty to our neighbours, we are quite content to settle down again to our usual composure, until we are startled by the cry of "Cholera, cholera!"

Meanwhile we should not be blind to causes of epidemic disease, which are constantly present where they are least suspected; nor should we entirely disregard the cautions of one eminent man, who declares that the utilisation of the sewage will make it dangerous to eat animals fed on grass that is grown on land so manured, on account of the eggs of entozoa which it contains, and that he cannot say what will become of us, unless we take better care of our fisheries, both in salt and fresh water; for if cattle and sheep are subject to rinderpest and small-pox, and pigs and rabbits to trichinosis, where are we to go for animal food, since it is impossible to find game and chickens for the whole nation?

Trichinosis is of interest to the Epidemiological Society, from the mortality which it has caused in Germany, where people eat so much pork and sausages; and it is not unknown in England, so be sure you are careful what ham-sandwiches you eat.

It is not exactly a *disease*, in the general acceptation of the term, but dreadful symptoms, sometimes terminating fatally, are produced by the presence of a minute "spirally-coiled hair-like" worm, hence called "Trichina spiralis," which infests pigs, especially in Germany.

It has been supposed that Herod Agrippa I., grandson of Herod the Great, died of trichinosis. The passage of the Greek Testament (Acts xii. 23) which refers to it was given to an undergraduate to translate at an examination, and this was his version of *καὶ γενόμενος σκωληκόβρωτος ἐξέψυξεν* (and he was eaten of worms, and gave

up the ghost), "and he became a skolekobrote, and died in the enjoyment of that honourable office"!

Zoologists call the trichina an entozoon, *i.e.*, an animal which lives inside another animal, as a parasite; but still, if you are a Darwinian, you must accept it for one of your "ancestors."

These "ancestors" of ours have an immense interest for the eminent doctor to whom we just alluded. He has written a big book about these, and multitudes of other entozoa; but they are low people, and by no means prepossessing in their appearance, if we may judge by the portraits he gives of them.

When we told a lady who was a friend of his that he had been made F.R.S. for his book on these wretches, what do you suppose she said?

"Oh, the nasty little man! Who could have thought he would ever have come to this? Frightening us out of our wits with his horrid researches! Well, he was the last man I should have expected to bother himself about such low creatures as those entomologists,—no, that isn't it — ah, yes, entozoa, thank you!

"When he was young he was such a nice little fellow, quite an acquisition to any society, and *such* a flirt!"

Fearful warning to male flirts, is it not? To think such an exquisite should develope into an anatomiser of the "trichina spiralis" and other equally low fellows among our (Darwinian) "ancestors"!

* * * * *

Besides the Medical Society, every hospital has two or three riflemen, a cricket-club, a boat-club, and a football-club, on paper at all events; but we are so occupied

with hospital work, and our far too numerous daily lectures, that the power of collecting a full team for any one of them is very uncertain.

You see men are so much engaged, that the wickets are hardly ever pitched at the time agreed upon, and the match is seldom played out to the end. It is all very well when you are at Cambridge; you can "jump into your flannel bags," and reach your college ground on Parker's Piece, or elsewhere, a few minutes after lecture is over; but when you have to pack up your traps, and catch trains, and steamers, and what not, and go ever so far out of town before you can begin—why then you *can't* feel much enthusiasm about mere drawn matches, and you are apt to think "le jeu ne vaut pas la chandelle."

Yes, you sadly miss the comfortable and health-giving habits of dear old Cambridge, where every one turns out for exercise from two to four, from the oldest don to the youngest undergraduate, as the paths through the fields and the "Senior Wrangler's Walk" are kept in such good order that you can get a constitutional, at least, even in the worst of weather. In London you have no walk except your compulsory trudge to and from the hospital, so you live two miles off for the sake of your health, and consider yourself lucky if you have a fellow-student in the same street, instead of living in college surrounded by friends, where you can even tap at the windows of a man on the other side of the quad. by cutting the wire of a soda-water bottle, and shooting across with the cork.

In town, alas! there are no "Backs of the Colleges," but back slums, through which you make short cuts when you are in a hurry; no boats but steam-boats;

no "Grassy Corner" but "Flirtation Corner;" no "Long Parallelogram" but the "Ladies' Mile;" and Hyde Park is out of reach except on Sundays. Happy the student who has friends in the West End, or at Richmond or Surbiton, to invite him to spend Sunday with them; for after he has been to church, and written home, he feels so dull that he does not know how to bear himself. Still it must be confessed that even a dull Sunday is a great boon; in common with many of our friends, we never properly appreciated the value of Sunday till we came up to London.

One feature in the character of many students surprises us very much—a number of them do not take the slightest interest in political affairs; to pass and get a snug practice seems to be the only object which has the least attraction for them. The other extreme is to be found in Germany, where even the children are hot politicians. A lady, who was staying in Saxony at the close of the Schleswig-Holstein war, happened to pass a school in Leipzig one day just as lessons were over, when the boys, rushing out, began to pelt one of their number, shouting at him "Bismark! Bismark!" Surprised at this, she asked one of them what it all meant. "Oh," said the urchin, "whenever a fellow gets too cocky we nickname him Bismark!" (Wir schimpfen ihn mit Bismark.)

Though we may pardon the Roman citizen of the Augustan age for being, as Horace tells us,

> "Quis Tiridaten terreat unice
> Securus,"

which we may freely translate by "not caring a straw about Maximilian and the Monroe doctrine," it is puz-

zling to find British subjects of the nineteenth century as apathetic as this towards current events at home as well as abroad.

If the Queen had appointed Mr Bright to succeed Lord Palmerston as Premier of the realm, we believe some of these fellows would have calmly dismissed the subject from their (?) minds with a listless "By Jove, what a go!" Punch's social sketches they prefer to his political cartoons, which generally express public opinion so faithfully. The 'Owl' quite mystifies them, and they actually read the provincial paper which is regularly sent them from home. They rush off at any hour of the day or night to look at a dirty fire (often getting their pockets picked), yet they never go to see the soldiers relieve guard at St James's Palace; they have no idea that two magnificent bands are to be heard here during the performance of this daily duty, and perhaps their uninquiring mind might mistake that venerable national throne-shed for the stables belonging to Stafford House, the residence of that prince of firemen, the Duke of Sutherland.

Some men do all this from whom you might expect better things; but it must be admitted there are also a few who are far keener politicians even than ourselves, and to one or two of these we beg to return our sincere thanks, for at many a dinner they have given us a spirited epitome of the Parliamentary debates.

The 'Illustrated London News' is a handy paper for a reading man who wants to keep up with the day without skimming the trash of the daily journals; but we wish it would always give copies of all the public examination lists.

A good many students begin to take in the 'Lancet'

directly they enter the profession, but it is amusing to observe how soon they give up this practice; except for occasional reference, the 'Lancet,' like any other strictly professional paper, is quite useless till you have passed, or, at all events, till your fourth year.

We said just now that a student had no society. London affords him plenty of scientific societies and theatres, but at these he is a mere listener; and unless he is unusually lucky, he knows no family circle in the whole vast metropolis where he can always feel sure of a welcome. He brings a few introductions, and is civilly received, perhaps asked to a stiff dinner now and then, but that is all.

The companionship even of his fellow-students is not enjoyed half so much as it ought to be, for when lectures are over they all disperse. Men who are attending the same hospital may be found to live in the Temple, at Bayswater, Clapham, Chelsea, Peckham, Hampton Court, Middleton, Regent's Park, Islington, Sydenham, and other places so widely separated that it is next to impossible for them to meet in the evening. How different this is from Cambridge life, which provides you with pleasant society close at hand whenever you choose; and whenever you don't choose you have only to "sport your oak," and your reading is forthwith undisturbed.

That "oak" is a grand institution, and the want of it in London would prevent familiar intercourse even between men who lived next door; for we are so ground down by our far too numerous lectures, and eaten up with examinations, that many men would be positively afraid to have friends whom they could not exclude when they did not wish to be interrupted.

At Cambridge a man forms intimacies in hall, at

breakfasts, at "bump-suppers," at "pass-parties," at the boats, at cricket, at the rifle-range, at the union, at the "chit-chat," and similar clubs; but a medical student can find opportunities to make friends only in the dissecting-room and the wards of the hospital when he is in-patient clinical clerk or dresser. Most acquaintances are made in the dissecting-room, as men help each other in "getting up their anatomy," and in "bringing out the part like a diagram." But many friendships are formed at the end of the day; men dine at the same chop-house, chat a while afterwards, and ramble home slowly together as far as they can in fine weather—generally, for the sake of exercise, by a more roundabout way than they came in the morning when they were hurrying to lecture.

In these chats we often learn what strange antecedents men have had; we have known medical students who had been officers in the army and navy, who had seen service in the Crimean war and the Indian mutiny; some had been in the Confederate army; some have even been gold-diggers in Australia; there is also a sprinkling of clergymen who intend to be missionaries, and who learn to save the body as well as the soul, thus following the good example of the Bishop of Labuan, a prelate who was a most distinguished anatomist while he was a student, and subsequently demonstrator at King's College. Some few are married. We knew one man who declared he could never have passed if it had not been for his good little wife making him work when he was inclined to be idle.

Students come from almost every known country in the world. There were some Egyptian students in Edinburgh a few years ago, whose adventures are worth relating.

The late Pacha of Egypt sent over a few of his subjects to learn British medical practice at that celebrated university, and they acquitted themselves extremely well, for they had to learn Latin and English (Greek was excused) in order to understand the lectures and technical terms. They were gentlemanly men, handsome, olive-complexioned, and very much like the figures in the ancient monuments. One of them took a Scotch wife home with him. They had passed their first three examinations in their first three years, when the Pacha died, and his successor, not caring about the expense, ordered them back immediately. They were in great distress at this, and petitioned the Senate of the University to appeal for them to the Pacha. The Senate accordingly represented to the Turkish ambassador that the money already expended would be wasted if they went home at the commencement of their fourth year, just as they were beginning to learn the practical part of the profession. The ambassador then obtained permission for them to stay another year, on condition that they became M.D. at the end of it, and learned how to manage the electric telegraph besides; but if they did not, then . . . .

So they all hurried away to the telegraph office, and got up the telegraph thoroughly; but, alas! they were not equally well versed in their medical subjects, and the examiners reluctantly felt obliged to pluck them, if only to keep up the credit of the university.

The disagreeable duty of telling them this fell to Professor Christison; and as he communicated the dire intelligence to them in his usual kind manner, he could not understand the sudden and excessive collapse into which they all fell. He tried to comfort them by say-

ing it was no disgrace to them—they had tremendous obstacles to contend with, studying a difficult subject in a foreign language—a little delay was all that was necessary—in another year they would pass triumphantly.

But they were not to be comforted, and at last one of them asked him if he knew what would be the consequences of their being plucked. Again Dr Christison answered, "Only a little delay."

"Ah, but I mean at home, not in Edinburgh."

"Oh, they need know nothing about it at home."

"But, sir, the Pacha swore that if we did not present ourselves with our diplomas in another year, he would cut off our heads!"

It was now the Professor's turn to be startled; but at first he thought it was only a ruse. However, they were still in a state of mortal terror; so the Senate inquired of the Turkish ambassador whether such had been the viceroy's threat. The ambassador replied that the Pacha of Egypt had certainly said so, and there was not the least doubt that he would keep his word! The Senate was so dismayed at this intelligence that, to keep the poor fellows' heads on their shoulders, they were all passed, the Senate deriving some small comfort from the reflection that they were going to practise only upon darkies, so that not much harm would be done. This occurrence took place before the Pacha had presented his subjects with a "Constitution," as it is almost needless to observe.

To return to the domestic life of medical students. Instances occur of two or three men living together; but these cases are not numerous. The object aimed at is generally economy, for the rent of rooms is so high in London, that men like to club together to procure a

good large common sitting-room with separate bedrooms. But this is unsatisfactory, for any stray relative or friend of A. who may happen to call when in town for an occasional visit, is not particularly delighted at seeing B. and C. the partners of his domicile; besides this, even the nicest fellows may get tired of each other's company now and then.

The only approach to social existence is to be found in hospitals after you have passed. All the resident medical officers have private rooms of their own, and meet for meals in a large common room; your examinations are now all over, so this is the most enjoyable part of your whole career, but it lasts only six months. At some hospitals these appointments cost you nothing, but at most places you have to pay a certain sum for your board and lodging during your term of office, and this, we think, is a hardship. No doubt it is a great advantage for a man to be house-physician or house-surgeon, and thus to learn thoroughly the practice of his profession under the superintendence of the staff, but it seems rather an anomaly for a qualified assistant to pay for the privilege of working hard all day, and of being liable to be called up at any time in the night. Let boards of management consider that "the labourer is worthy of his hire," and see if they cannot afford to give up the fees now exacted from resident medical officers, who save many lives annually on emergencies, and who have already been at great expense for hospital practice while students. There is a general impression that full physicians and surgeons of hospitals are paid for their services. This may be the case at the three great endowed hospitals, St Bartholomew's, St Thomas's, and Guy's; at those which are supported

by voluntary contributions some members of the staff receive some slight remuneration by the students' fees for lectures, but they get nothing for curing the patients.

It is an advantage for patients to be in a hospital which has a medical school attached, for in order to explain the disease to the students the doctor must go into their case far more thoroughly than he would do if he had only to satisfy himself what treatment was necessary.

It is a disadvantage that students cannot have a little civilised society in town, for when they go home in the vacations, they have been so long accustomed to "talk shop," and hardly anything else, that the remarks they make in perfect innocence are often very embarrassing.

Let us give an instance, perhaps one of the least awkward cases, but we think you will agree with us that even it was rather startling.

There is a ridiculous popular superstition leading to the remark that when the right ear tingles "some one is speaking well of you," when the left ear tingles "some one is speaking ill of you," and when the nose tingles "there will be news."

The poor nose is also to be subjected to the following treatment if you wish for a favourable result:—

> "Rub it against wood,
> And it's sure to be good;
> Rub it against brass,
> And it's sure to come to pass."

"It" here refers to the nose and the news alternately. We say no more concerning the disregard shown to the memory of the late Mr Lindley Murray; we have merely to state that some girls were talk-

ing about this rubbish, and they could not for the moment recollect what was the consequence of the *nose* tingling.

While their empty little pates were in this state of perplexity, a medical cousin happened to come in, and was immediately accosted with,

"O, Georgie! when your nose itches what's that the sign of?

"Worms!" was the astounding but perfectly correct reply, which sent the electrified damsels flying from the room, leaving the hapless cousin almost as much astonished as they were at the unexpected effect of the straightforward answer to a simple question.

Students in London are destitute not only of social but also of university life, and, in fact, men may actually be found who know no student at any other hospital. The University of London is a mere examining board, and it was a good while before we had a right idea of its constitution. The examiners are elected for a limited number of years by the senate, and are chosen from every hospital and college in turn. There are no professors to the university who lecture in certain terms as at Cambridge, no vice-chancellor, no heads of houses, no proctors, no esquire-bedells, and therefore no "pokers;" but there *are* "bull-dogs," who walk about the room during examinations to prevent cribbing.

What Cambridge man was not vividly impressed with all he saw and heard the first time he waited for the proclamation of the list of names in the mathematical tripos on the eventful morning in January?

Who can forget that motley, jubilant, and matchless scene, even should he live as long as Methuselah?

How the undergraduates throng the space between the Senate-House, Great St Mary's, and Caius! Some in cap and gown, just out of chapel; some in boating costume, muffled up in pea-jackets and comforters, just returned from "training" by running round the "Long Parallelogram;" some lazy men half-dressed, buttoning their waistcoats, and evidently just out of bed; some who have been up at the examination, pale with anxiety about the place they are to take; others trying hard to whistle and look unconcerned—all quivering with impatience, and wondering why the moderators and examiners don't make their appearance!

Ha! what does that rush mean? Are those men in front going to scale the railings and storm the Senate-House? No, they are merely jumping up the balustrade to hear better, for within the palisades they see the dons advancing, followed by the satellite bull-dogs.

At the top of the Senate-House steps stands the senior moderator with the list in his hand—breathless attention—awful pause—at last he speaks—

"Senior Wrangler, Thompson of Trinity!"

"Hurrah! Hurrah!! Hurrah!!!" rings through the square with uproarious heartiness, especially from Trinity men, and poor Thompson is almost torn to pieces by his admirers in their eagerness to shake hands with the hero.

When the cheers have somewhat subsided, out comes the old don with Wrangler number two, "Wilson of John's!" "Hurrah! Hurrah!!" peals forth anew from vociferous Johnians, who nearly wrench off Wilson's hand, till their attention is drawn to number three, "Robinson of Caius!" "Hurrah for Robinson!" shout the merry "Gonvillo-Caienses," while the Caius

windows overhead resound with a frantic clatter of bottles, glasses, and pewters, hospitably flourished by the Caius men who are lucky enough to have rooms so close to the Senate-House steps.

"Brown of Pembroke, Johnson of Clare, Walker of Trinity Hall," are the good men and true, whose names, hurriedly uttered by the now slightly-flurried old don, awake fresh echoes in the throats of their open-mouthed friends, and after the first six names the moderator's voice is overwhelmed by the joyous din; but it does not signify, for he and his radiant colleagues are flinging the lists broadcast among the surging mass of eager upturned faces—there is a scuffling scramble for the fluttering papers among the loud-voiced crew—and all is over for *that* year.

Then every one goes his way rejoicing, "freshman," "junior soph," and "senior soph" alike hoping that when he, too, becomes a "questionist" *he* may have as much success as the happy men who have just had their glorious and tumultuous triumph.

With this lively scene in our memory we went to the Senate-House of the University of London the first time a class-list of medical degrees was to be published after we came to town, naturally expecting to see something of the same kind, for the court-yard of Burlington House is quite large enough to hold all the medical students in London, and more besides.

Our surprise and disgust may be imagined when we found we were the only man who had taken the trouble to go—the examinees, wiser in their generation, had quietly procured the class-lists the night before by means of a judicious arrangement with a friend at court!

But though it is quite true that there is no college life, properly speaking, among medical students in London, it is also true that in each year there are sure to be several sets formed of men having similar tastes, who chum together on all occasions.

They get parts on the same body, sit together at lecture, make parties to go and see other hospitals, even cholera hospitals, parties to the theatre, parties to church, if the church be remarkable for anything in the way of preaching, ritual, or beauty, parties up the river, parties to a private operation or P.M.,—parties, in fact, to anything in which they take a common interest.

Wine-parties are not so common as at Cambridge, for London students are not so rich as Cantabs, and they do not seem to have much fancy for Mr Gladstone's cheap wines ; but punch-parties are popular.

We need not describe a punch-party of average students ; it is neither more nor less witty, dull, noisy, "broad," or blasphemous, than a wine-party of average Cantabs or Oxonians, which has been described over and over again, almost *ad nauseam*. The conversation of most young men between eighteen and twenty-two will naturally turn on the current topics of the day, tinged more or less with "shop," be it boating "shop," cricket "shop," sporting "shop," or professional "shop."

It is at parties of men above the average that any decided tinge is observed in their opinions and habits. This tinge is of various degrees of intensity, generally very amusing to the observant spectator, and often very grotesque.

Williams, Johnson, Brown, Jones, Robinson, and

Smith are among the best men at their hospital, and assemble occasionally in Brown's rooms, which are the most conveniently situated for the rest of the party, to spend the evening in making experiments and looking at specimens under the microscope. Their sceptical criticism is very wholesome in this world of shams, for they are so firmly convinced of the difficulty of arriving at a fact in anything, especially medical science, that they receive with placid distrust every assertion, even from Germany, till they have made investigations of some sort themselves.

When we call their criticism "sceptical," we by no means intend to countenance the proverb, "Ubi tres medici, ibi duo athei," for students have quite as much faith as most people in the doctrines of Christianity, and are regular in their attendance at church. Indeed, some of our friends look so respectable at church that the vergers have even asked them to go round with the bag for the offertory when the regular collectors of alms have been absent. Some men find time to join the choir in the church they frequent, and we knew one student who was a burning and a shining light among the Plymouth Brethren.

As for theology, most medical students are quite content with what their mothers taught them at their knees when they were learning the Church catechism; they have no taste for controversy, as it leads to nothing—but *odium theologicum.*

We were once asked in a long vacation for an instance of this "sceptical criticism;" we gave one cheerfully, on which some excellent people exclaimed, "How shocking!" Judge for yourself, reader, whether the following sentiments deserve this exclama-

tion:—St Luke was being discussed, and though he was allowed full credit for being far more precise than the other evangelists, as might be expected from a gentleman and a physician, a student found great fault with him for giving such a meagre account of the journey to Emmaus. (Luke xxiv. 2, "And beginning at Moses, and all the prophets, He expounded unto them in all the Scriptures the things concerning Himself.") "What a pity," said the critic, "that all this was not reported word for word, for it would no doubt have prevented half the controversy that has filled the world with dissensions! For my part, to have secured this, I would cheerfully have sacrificed the Revelation, Solomon's Song, Ezekiel, the minor Prophets, and all but the merest epitome of the so-called historical books of the Old Testament, for the amorous and bellicose doings of the patriarchs and kings are far less excusable than those of the heroes in the Greek and Roman mythology."

No, they only discuss everything that happens to turn up in conversation, whether sacred or secular, without the slightest hesitation or impartiality, and if they had only the power, what a Utopia for science they would create!

These "noctes Utopianæ," if we may so term them, are exceedingly amusing, and perhaps we may be tempted at some future time to give a more detailed account of them; at present we can draw only a scrambling sketch of one evening.

The bill of fare to-night is varied; Williams is great on rinderpest; he has worked for the Cattle-plague Commission, and dilates on the lithographs there will be in a forthcoming work on the subject; afterwards

he and Johnson show some tables from their extensive analyses and researches in cholera at the east end, much to the admiration of the others who are not such profound chemists.

Jones is a good microscopist, and has brought some specimens made by himself, which he believes are quite sufficient to prove that Bowman is right and Henle wrong—there are *no* "down-looping" vessels in the kidney!

Smith relates some experiments he has made, which he thinks settle the falsetto question. In ordinary vocalisation he says the true vocal chords act like a pair of beating reeds; in falsetto notes they act like a pair of free reeds.

Robinson produces a laryngoscope and a spray-producer, and all the party are experimented upon in turn. The throat is partially anæsthetised by the spray of solution of bromide of potassium, and then every one by turns examines his own larynx and those of his friends.

Brown has a battery (borrowed) and some frogs (begged) on which to repeat the experiments of Galvani and Du Bois Reymond. Frogs are victimised by all physiologists, and will keep alive for months in a jar of water without any other food. They are beheaded with a pair of sharp scissors, but sometimes the experimenter is obliged to make them rather "deader," for decapitation seems to cause them but a trifling inconvenience, as they sometimes require choloroform after the operation to prevent their hopping about the room in their headless condition. Their sciatic nerves are then exposed, the battery connected with them, and the results observed.

None of the party have as yet seen the "lacteals" in a satisfactory way, so a dog (captured), which was fed at the beginning of the evening with bread and milk, is now brought forward.

He is killed, his lacteals exposed, and the party begins to feel satisfied with the first part of the evening's entertainment. Smith, who has a fine voice, begins to sing,

"Mynheer van Dunk,
Who ne'er got drunk,
Took brandy and water daily;"

and Brown accordingly takes the hint for placing on the table cigars and cognac, which, however, are never indulged in to an extent sufficient to prove detrimental to

"The feast of reason and the flow of soul."

No, the conversation is sprightly, but not in the least objectionable. Brown plays a few airs on the piano, Robinson on the flute—not very artistically, to be sure, but still enough for home amusement. Smith gives a song, and every one, like "Box" in the farce, takes a part in the chorus of "Some Folks," which is sung with great heartiness—

"Long live the merry merry heart,
That laughs by night and day,
Like the Queen of Mirth,
No matter what Some Folks say!"

And they are quite right to be light-hearted, for Peter Pindar says truly—

"Care to our coffin adds a nail, no doubt,
But every grin, so merry, draws one out."*

* The music-books in use at "Evans's" in Covent Garden abound with good classical songs; we have even heard Horace, Od. i. xxii.

Each man has now finished his cigar, and Jones proposes a game of short whist. Brown objects, on the ground that *short* whist is apt to extend to a very *long* game. Smith seconds the objection, for he says he does not like to be late, and being a bit of a poet, he gives his reasons in an impromptu rhyme—

"Examinations are so near,
'Twould really not be prudent
To taste of pleasure, which I fear
Would interrupt a student."

"Bravo," says Robinson; "come, old fellow, give us your celebrated song about the spring exams., and then we'll toddle." Smith is always singing, so he readily agrees to give the following song, which accurately describes the condition of a man who is going up for his intermediate examinations at the Colleges of Physicians and Surgeons in April, most fickle of months.

(We were at great pains to discover who wrote this song, but, having at last succeeded, the amiable author, while kindly allowing it to be printed, declines to append his name. For all that we thank him very heartily for the pleasure his song has caused to hundreds of good companions, and more heartily still for the incitement this proved to other students to write songs for special occasions in their college career.)

and xxvi. sung in this, the only gentlemanly music-hall in London. Among other songs from these books we may mention the following as very popular among students:—Sir Henry Bishop's glee, "The Chough and Crow to roost are gone;" "The Hardy Norseman's house of yore;" "The Stirrup-Cup;" "Ye Mariners of England;" and "Rule Britannia."

One day a lecturer was late, so the whole class, consisting of about seventy men, joined in singing "Rule Britannia" with immense spirit. We never enjoyed it more thoroughly.

Spring Examination Song. By D. L.

1.
You ask me, Tom, to fill my glass,
You call on me to sing,
You know I cannot, Tom; alas!
I'm going up in spring.

2.
My airs so "volatile" before,
Are of the "fixèd" sort;
My wit, that roused the merry roar,
Confined to a "retort."

3.
I cannot dance, my only "steps"
Are up the stairs to class;
I cannot laugh, save with a dose
Of "nitrous oxide gas;"

4.
Nor spin an after-dinner yarn,
Nor make the chorus ring;
I pass the bottle and the glass,
That I may "pass" in spring.

5.
You tell me of some pretty girls
You'll introduce me to—
Some with their teeth like rows of pearls,
And some with eyes of blue.

6.
In vain you say "Their hearts are warm"—
Their warmth I don't suspect;
But I can't come—I have "a heart,"
A *cold* one, to dissect.

7.

If e'er I hear a tale of woe
For human sympathy,
The "sympathetic nerve" alone
Suggests itself to me.

8.

In spring I'm going up,—glad spring
No joy will bring to me;
No verdure then shall I behold
In flower or forest tree.

9.

In place of gathering lovely flowers
From nature's glorious glens,
Cramming I then must sit for hours
At those "dried specimens."

10.

So come I cannot, e'en although
Full well I be inclined;
For time flies fast, and I, you know,
Must never cease to grind.

CHAPTER XI.

OUR DIPLOMAS, AND HOW WE READ FOR THEM.

Object of medical studies—Dr Latham's and Sir Thomas Watson's lectures—Choice of a hospital—General practitioners—Anagrams—"The College and Hall"—L.R.C.P. *versus* L.A.C.—House-surgeoncies to country hospitals—Regulations to be changed, and why—Is L.R.C.P. equivalent to Dr?—Cram-papers—Foreign medical schools.

We have seen how a medical student is trained; now let us inquire the object of his studies. If you believed what is told you in the introductory lectures at the beginning of the winter session, you would be under the impression that there could be no chance of getting your diploma until you were well versed in

> Physiology and pathology,
> And all the rest that end in "ology;"

for not only are the prescribed subjects numerous, but indispensable; and as Swift, in one of his books, makes each servant act as if his master's whole income were to be spent in his own department, so each lecturer puts forward his own subject as the one on which the student's future welfare mainly depends.

One of the Queen's physicians, Dr Latham, in his published lectures, does not say as much on this sub-

ject as when he delivered them; he then observed, as we are told by one of his former pupils, "I do not find *astrology* mentioned at present, but I have no doubt such an important omission will ere long be supplied!"

(Ah, Dr Latham, Dr Latham, why do you not bring out another edition of all your valuable lectures? They are not to be had for love or money; we wish you could see our copy of them: it is composed of bits cut out of medical papers, and one or two in manuscript transcribed from the library volume.

Sir Thomas Watson's lectures, also, are out of print, and sadly want re-editing, for his style is equalled by very few medical authors of the present day; and of these few the majority shrink from the labour of writing so large a work without assistance; and we are therefore obliged to fall back on Dr Russell Reynolds's 'System of Medicine,' which threatens to become as ponderous as Mr Timothy Holmes's 'System of Surgery.' Will no physician of ability and experience come forward with a compendious treatise written as happily as Sir Thomas Watson's, and bringing the subject down to the present day? This seems to offer a fine field for a clever and energetic author.)

You attend the prescribed courses of lectures, and you discover that, if you are only going to take the diplomas of the Colleges of Physicians and Surgeons, you have done all that is necessary, while, if you intend to graduate in the University of London, you must read infinitely more than you learn from your lectures. That being the case, it does not signify at what hospital you enter, for if you are a lazy man, the best staff of lecturers cannot make you study more than will

enable you to "pull through with a squeak;" and if you are a reading man, the worst lectures will do you no harm, for you will read for honours by books far more than any lecturer has time to tell you; and if your hospital have plenty of beds always full, you have merely to look about you sharply, and your "practice" will keep pace with your "theory."

A *large* hospital in a *pleasant* neighbourhood, is all we ask for.

The majority of students become general practitioners—"G.P.'s;" for though it sounds very fine to be a

> "Philosopher and Physician,
> Author and Metaphysician,"

yet students firmly believe in the anagrams, that to be a *philosopher* is *poorish help*, and that *physician* means *I say pinch!* for a pure physician scarcely earns his daily bread till he has lost his teeth to eat it with.

Now a man who wishes to be a general practitioner must be "double-japanned," as we call being "doubly qualified," or, in other words, he is required by law to have two diplomas, one to practise surgery, and one for medicine. Formerly these were obtained from the College of Surgeons and the Apothecaries' Hall; that is to say, every medical man was a member of the Royal College of Surgeons—M.R.C.S.; and a licentiate of the Apothecaries' Company—L.A.C. This is what students mean when they talk of having "passed the College and Hall."

Of late years the College of Physicians has granted a licence to practise medicine, but people stupidly distrust the licentiate of the Royal College of Physicians —L.R.C.P., though he has passed a much stiffer exa-

mination than the L.A.C., because they have become so accustomed to Apothecaries' Hall.

The latter is threatened with extinction by that most irrepressible company, the London, Chatham, and Dover Railway; and the sooner the better, for it is not fair that a set of tradesmen should affect to grant licences to scientific men like doctors of the present day. The Society or Company of Apothecaries deserves the thanks of the public for having been the first to introduce preliminary examinations in classics and mathematics for ordinary practitioners, but it errs in not making its final examinations more in accordance with the requirements of the age; and as the College of Physicians has corrected this fault, it ought to be recognised by public confidence.

No doubt the Apothecaries would have even fewer candidates for their diploma than they have now, were it not for the regulations of many country hospitals, which enact that their house-surgeons shall hold the two diplomas of the College of Surgeons and of the Apothecaries' Company. Medical men always want to earn their own living as soon as possible, and these house-surgeoncies are very good things to begin with, so they *must* conform to the regulations. The "*vis inertiæ* of old-fogeydom" resists all improvements so tenaciously that these regulations will never be altered until some influential member of the board of management suggests the propriety of keeping his hospital up with the age, and is in a position to carry his motion with a large majority.

But perhaps this "influential member" would like to know why he should "keep the hospital up with the age," and why students should demand the aboli-

tion of the easily obtained diploma in medicine, and clamour for the recognition of the more difficult. Let us explain the latter first; it is mainly for the honour of the profession and the safety of the public. The most notorious and heartless poisoners of late years were Palmer and Pritchard, both general practitioners, with the College and Hall diplomas. Pritchard was called "Doctor," but he had no degree beyond a trumpery German M.D. purchased at Erlangen without passing any examination. Neither of these, at the end of their student's career, could have passed the examination for the present diploma of L.R.C.P., so they would not have been let loose upon the unsuspecting public.

Do people wish to have for their medical attendants men who have received a thoroughly sound, scientific education, and who, by their long contact with the most eminent physicians and surgeons in town, have learned to regard their profession with such chivalrous respect that it would be *impossible* for them to stoop to crimes so atrocious?

If so, let the Apothecaries' diploma be abolished, and the physicians have fair play; let them see their efforts to protect society seconded by the common-sense of the country; let the men on whom they have put their stamp be recognised—then the L.R.C.P. will be trusted as fully as the M.R.C.S., his inferior; and if the Apothecaries' Hall were abolished, that would be a step towards amalgamating the Colleges of Physicians and Surgeons with the University of London, which is a favourite scheme with some leading men of the present day; therefore, let the "influential member" make his suggestion to the "board," with the full assur-

ance that he will, by that simple process, contribute his quantum to the advance of science and the defeat of crime.

We should like to din our arguments into the ears of some "influential members," but as this is impossible, we must be content with an appeal to their wives and daughters, cousins and sisters, nieces and wards, to do so for us. Consider, fair ladies, ought not your medical man to be as much of a gentleman as the clergyman of the parish? You tell your doctor secrets you would never breathe to any pastor, so be sure that he be a worthy recipient of your confidence. The higher his professional attainments, the more likely he is to be, like Bayard, *sans peur et sans reproche;* so pray endeavour to suppress apothecaries in future, and to supply their places with licentiates of the College of Physicians.

There has been an immense deal of correspondence in the medical papers about the right of a licentiate, a member, or even a fellow of a college of physicians, to call himself *Dr* So-and-so when he has no academical degree.

As far as can be ascertained, the law is so gloriously uncertain that there does not seem to be any means of preventing him: if he chooses to do so, he has to brave nothing worse than sneers from those who are really doctors of medicine, and others who despise the assumption of the title on such very uncertain grounds.

We here insert copies of the diplomas in question; and as our own are not at hand at present, we have borrowed those of a friend, on whom we may bestow the legal name of John Doe.

College of Physicians' Diploma.

Arms and Motto.

'Ο βιος βραχυς 'η δε τεχνη μακρη.

I, *Thomas Watson, M.D.*,
President of the Royal College of Physicians of London, with the consent of the Fellows of the same College, have, under the authority given to us by Royal Charter and Act of Parliament, granted to

John Doe

who has satisfied the College of his proficiency in the science and practice of Medicine, Surgery, and Midwifery, our Licence under the said Charter, to practise Physic, so long as he shall continue to obey the Statutes, Bye-Laws, and Regulations of the College relating to Licentiates : in witness whereof we have this day set our seal and signatures.

Dated at the College the *Twentieth* day of *July*, in the year of our Lord One thousand eight hundred and sixty-three.

Thomas Watson, President.
W. E. Page,
Jas. Risdon Bennett,
Arthur Farre,
Henry Oldham, Examiners.
John Erichsen,
F. Le Gros Clark,

I certify that *John Doe*, to whom this Licence has been granted by the College, and whose signature is subjoined, has been duly admitted to practise Physic, as a Licentiate of the College.

Henry A. Pitman, Registrar.
John Doe, Licentiate.

(Paper diploma, 23 in. long, 18 in. wide.)

College of Surgeons' Diploma.

£1 stamp.

Arms and Motto.

QUÆ PROSUNT OMNIBUS ARTES.

Know all Men by these Presents:

That We,—The Court of Examiners of The Royal College of Surgeons of England have deliberately examined Mr *John Doe*, and have found him to be fit, and capable, to exercise the Art and Science of Surgery.

We, therefore, admit him a Member of the College.

In Witness whereof, We have subscribed our Names; and have caused the Common Seal of the College to be affixed hereunto.

Dated the *Thirtieth* day of *July*, in the year of our Lord One thousand eight hundred and sixty-three.

Round white paper seal.

Frederick Skey, President.
J. Hodgson, *Thos. Wormald*, } Vice-Presidents.

Wm. Laurence.
Joseph Henry Green.
James Moncrieff Arnott.
John F. South.

Cæsar H. Hawkins.
James Luke.
Francis Kiernan.

Enrolled by *E. J. A. Trimmer*, Secy.

Name and Residence of Member,
John Doe, Cheapside, London.

No. *8964.*

(Paper diploma, 22 in. long, 15 in. wide.)

Well, no matter which of the two medical diplomas you decide to take, you must get your surgical diploma from the College of Surgeons, and part of the preparation for this ordeal is very amusing to an unconcerned spectator, for on the two or three days previous to the examination many most promising beards and mustaches are ruthlessly shaved, and "bird's-nest" whiskers are reduced to a size more suggestive of a meek-faced curate than of Lord Dundreary.

If you are plucked you cannot try again for three months; but we will not anticipate such a dreadful alternative—we will suppose that you pass, and "go down" to recruit your energies, after enjoying a pleasant "pass-party" with your fellow-students.

When you get home your sympathising relatives ask you "how you contrived to recollect so much?" and you satisfy their curiosity by some such narrative as the following:—It is a mere matter of "cram" with men of ordinary capacity—and which of us will venture to say he is not a mediocrity? "There are twenty millions of people in England—mostly fools!" Is it not written in the book of Carlyle? When such a philosopher speaks, who dare contradict him but those who are said to "rush in where angels fear to tread"?

We take notes at lectures, which at night we read over and correct from the books, marking the important points to be remembered with chalks of various colours: for instance, the symptoms of a disease will be marked red, the principal objects in the treatment will be green, and blue will indicate the chief points of diagnosis, or those which distinguish one malady from another.

The diagnoses are also generally arranged in parallel columns so as to catch the eye readily; and this plan is

most valuable for cramming, as you rapidly cast your eye over your notes before the examinations, although some men affect to sneer at it.

We will not mention an example in diseases, since that might horrify you; but as we adopt the same means in botany and zoology for recollecting the distinctions between different classes of plants and animals, we subjoin the diagnosis of the three sub-orders in the great natural order "compositæ," plants with composite flowers:—

1. Corymbiferæ.	2. Cynarocephalæ.	3. Cichoraceæ.
Ex. Yarrow.	*Ex. Thistle.*	*Ex. Dandelion.*
Florets tubular.	Florets tubular.	Florets ligulate.
Involucre soft.	Involucre hard.	

In his 'Medical and Œconomic Botany,' Lindley has a number of these useful diagnoses which he does not mention so clearly in his other works.

In "cram-papers," subjects are reduced to the smallest possible space, and are often full of the strangest hieroglyphics, intelligible only to the compiler; but there are symbols in chemistry that are recognised by all chemists: a specimen may perhaps be interesting.

The following is part of a "table of elimination," which we modified from the books to aid us in practising analyses of unknown substances in the laboratory. We are examining solutions of simple salts, consisting of one acid and one base, and we are trying first to find out the base.*

We have already found that hydrochloric acid and ammonia have thrown down no "precipitate" (written

* For the benefit of non-chemical readers we may remark that "saltpetre" is a "salt," its "acid" is nitric acid, its "base" is potash—hence its chemical name, "nitrate of potash."

ppt. or P.), so we "add to the acidified solution HS," to which allusion was made in Chapter V.

It gives, let us suppose, a black precipitate, or "Black P.," so we know it belongs to the "copper group;" which of the six it is we learn from the following table.

Take *fresh* separate portions of the original solution, and add to the

1st HO+	2nd NH_4O	3rd KO	4th SO_3	5th SnCl	
White P. on dilution.	Azure colour. Knife ↕	Yellow P.	White P. sol. in KO.	Purple colour.	Red colour.
BiO_3	CuO	HgO	— PbO	AuO_3	PtO_2

If we now translate this you will see how compactly the information lies, and how much more readily it catches the eye than when expressed in words at full length.

Add to the 1st water; a white precipitate, on adding water in excess (+, plus) to dilute the solution, indicates the presence of a persalt of bismuth.

To the 2nd ammonia; an azure blue *colour* in the solution, not a *precipitate*, indicates protosalt of copper. (Confirm by putting your penknife in the fluid, when copper will be deposited on it.)

To the 3rd potash; a yellow precipitate indicates a subsalt of mercury.

To the 4th sulphuric acid; a white precipitate, soluble in potash, indicates "minus lead"—*i.e.*, a weak solution of a protosalt of lead (—, minus).

To the 5th, chloride of tin; a purple colour indicates a persalt of gold, a red colour one of platinum.

Nearly every one has a *memoria technica* for himself, and a friend of ours, who had quite a genius in that way, supplied many of us with very useful hints. He was continually finding out coincidences, sometimes rather far-fetched, but still they made an impression on the mind, and that is all one desires.

This was one of his earliest. He said that when he was at school he was bothered with the Wars of the Roses; he could never recollect which was red and which was white, till he observed that York began with a Y, and its rose, the white one, also began with a similar sound—Whi!

The colours of the rainbow are

Vĭŏlĕt | Ĭndĭgŏ | Blūe || Grēen Yĕllŏw | Ōrănge ănd | Rēd ||

He recollected their proper order, both because they formed a rude pentameter verse, and because the initials, taken together in the BODFI style (see p. 38), form VIBGYOR.

In anatomy, more than any other science we take up, these aids to memory are practised, but we have not half enough of them. There is a muscle in the arm called the "supinator brevis," which is often known by the name of the "sixpenny muscle," for so many sixpences have been staked and lost on it. "I'll bet you sixpence you can't say off the nine points of origin of the supinator brevis in the right order without a single mistake"—this bet being offered to a man who has just dissected an arm for the first time is generally taken and almost invariably lost.

We sadly want a *memoria technica* for it, and maybe our friend of the "Roses" will invent one by accident, as he did for the branches of the femoral artery. One

day a man who was dissecting felt his arm suddenly twitched by somebody passing his table, and instantly exlaimed, "Sam, Sam, Sam, Don't Pull My Arm!' and our ingenious friend who was sitting near presently burst out laughing, for he found the first letters of the words correspond to a certain extent with the initials of the branches of the femoral artery—the Superficial epigastric, the Superficial circumflex iliac, the Superficial external pudic, the Deep external Pudic, the Muscular, and the Anastomotic!

Here are some more instances of a *memoria technica* being useful. In the jaws the *inner* side of the alveolar processes is *thinner*, the *outer stouter;* the pupil *di*lates for *di*stant, but *co*ntracts for *cl*ose objects. Of the interosseous muscles, the *do*rsal cause the digits to *di*verge from the middle line, the *pa*lmar and *pl*antar to *app*roach it.

* * * * *

Is it surprising that four years' incessant cram of this sort on such numerous subjects makes even the most conscientious students very tired of taking notes and "grinding them up"?

No wonder we are thin and good-for-nothing at the end of each session. It is needless to hint dissipation as the cause of our miserable plight, when we have all this cramming in addition to dissection and hospital atmosphere, with insufficient exercise. No wonder we are indeed inexpressibly thankful when our last examination is over.

When a student has "passed," he should go the round of the medical schools on the Continent, if he can afford the time and money. We have not been to see them yet, so we can tell our readers nothing about

them; we must, therefore, content ourselves with referring inquirers to Dr William Rutherford's interesting article on the subject in the 'Edinburgh Medical Journal' for October 1865, p. 341-347.*

* Should this little book be so favourably received that another edition is demanded, we hope by that time to have had experience enough of the Edinburgh and Dublin Medical Schools to give in a new chapter a comparative sketch of the students in the three capitals.

CHAPTER XII.

THE UNIVERSITY OF LONDON.

Proposed amalgamation of the Colleges of Physicians and Surgeons with the University of London, and why—Alternative till this can be effected, in order to prevent "Hossing"—What a "doctor" should be—Difference between University College and the University of London—Origin of both explained—"Stinkomalee"—The 'Anti-Jacobin'—Ingoldsby's parody—Origin of King's College—Stormy debates before obtaining the charter for the University—What it still wants—Parting words.

We said it was proposed to amalgamate the present Colleges of Physicians and Surgeons with the University of London, so as to have only one medical examining board in the metropolis. It would take years to carry out this scheme, but whenever it is effected it will be a great improvement, for it is a nuisance to read surgery for the College of Surgeons alongside of organic chemistry for the University.

We must explain how this occurs: A man comes up to town entirely ignorant of the regulations, so he is not aware till he is crowded with work that before entering his hospital he should have passed the matriculation examination; this is rather stiff, so he cannot get through it till the end of his first year, but must be content with passing, instead, the easy preliminary

examinations of the Colleges of Physicians and Surgeons. At the end of his second year he ought to pass another University examination called the "preliminary scientific"—but he has now to go up for his intermediate examinations in materia medica, anatomy, &c., at the Colleges. He cannot read for all three at once unless he is a very strong or a very clever man, so he passes the intermediate examinations, which are the easiest, and leaves the "preliminary scientific" till his third year. In his fourth year he has his final examinations in medicine, surgery, etc., at the Colleges, with the "1st M.B." at the University; and it is very distracting to try to read medicine and surgery, etc., for the former, by the side of anatomy, physiology, and organic chemistry for the latter.

It will be objected, "Oh, but he knows his anatomy already!" Yes, enough for the Colleges, but not for the University; and in proportion, the other subjects are more difficult. For instance, at the Colleges you may be asked, "What structures pass through the large hole in the occipital bone?" You may reply quite correctly, "The spinal cord, its vessels and membranes, the vertebral arteries, and the spinal accessory nerves," but that is a very short answer. This is the sort of question you will have at the University, "In the dried skull, the cheek-bone and upper jaw-bone being removed, describe all that can be seen." This would take a very long time to answer, for books do not help; you would know nothing about it unless you had gone over it carefully by yourself with a skull properly mounted.

Therefore the advantage of having but one examining board is obvious, and all agree that the University

of London would be the best. Of course there must be different grades of doctors as there are of lawyers, and a class of men for country practice might be easily provided by establishing the Oxford and Cambridge differences between honour-men and pass-men; the former for greater distinction we would call "Bachelors," and the latter "Licentiates," of medicine or surgery as the case might be.

There are already "licentiates of medicine" at Cambridge, but that title is not a degree, only a licence supplementary to the M.D. or M.B.; still we think "L.M." and "L.S." might be made the lowest degrees, for it seems to us that universities alone should pretend to give qualifying diplomas to such scientific men as medical practitioners of the present day.

We would reserve the highest degrees, "Doctor of Medicine" and "Doctor of Surgery," for those who intended to be pure physicians or pure surgeons; medical and surgical doctors would then be as few in number as legal and theological doctors, which would be a far better plan than the prevailing custom of dubbing all disciples of Æsculapius *doctors*, merely because they practise the healing art.

It would be only fair to hand over the monopoly of conferring medical diplomas to the University of London, as, in spite of Mr Gathorne Hardy's assertions in the House of Commons, it has done an immense deal to raise the general education of the country, for between three and four hundred students matriculate in it every year, though the matriculation examination is as difficult as the "little-go," or "previous examination" at Cambridge.

It is stiffer than the Oxford and Cambridge middle-

class examinations, for in them you can choose any three subjects you like, but at this you must pass in seven—Latin, Greek, English, Mathematics, Natural Philosophy, Chemistry, and French or German. It is a very good test to have stood, for if you intend to be a lawyer, it saves you one examination and a year of your articles; and if you wish to be a doctor, it exempts you from the preliminary examinations everywhere.

The best plan is to pass it while you are at school, and in full training, or directly after you have left.

It is a well-conducted examination, but it might be improved by a slight modification. The chemistry and natural philosophy ought to be separated from it, and confined entirely to the "preliminary scientific" examination, which is held a year later in the student's course. For the latter you must really be thoroughly trained in these two subjects, but for the matriculation you have to cram up a mere smattering, which is thoroughly detested, and forgotten as soon as the examination is over.

What is the use of making all who wish to matriculate take up chemistry? It may be well enough for *medical* students (though it would be better to defer it to the preliminary scientific), but for arts-men such a smattering is simply absurd; we have met many who have forgotten it entirely in a month, and who never intend to open a chemical book again.

Boys are not taught chemistry at school, nor do we see why they should learn it there; for though they like making experiments, they cordially dislike cramming up chemical formulæ. Besides this, classics and mathematics throw natural science completely into the shade as a means of education—believe the experience

of one who has gone through both courses of training. Examine candidates on what they learn at school, not on what they cram up afterwards. The mathematics are stiff enough already; if they were made stiffer, depend upon it men would have less time to get up "English Literature," which, surprising as it may seem, is a stumbling-block to many.

But the classical part of the examination might be improved, for the prose composition (there is no verse), both in Latin and Greek, is ridiculously easy compared with the other subjects. Set a man a bit of prose or verse out of "Holden," and by his style of rendering it you can estimate his capacity of remembering what he has been taught a great deal more accurately than by his elementary science, which he has crammed but not learned.

This proposal to alter the matriculation examination leads us to a suggestion which we offer as an alternative to those who might object to such a sweeping change as the amalgamation of the Colleges of Physicians and Surgeons with the University.

All these examining boards, no doubt, wish to bring the greatest possible number of students to the greatest possible state of efficiency, but they cannot succeed until they combine with each other to make the examinations more convenient for the student.

We have seen how the preliminary scientific examination is often postponed till the second or third year, consequently the other two examinations for the M.B. degree are thrown back, and this habit of not going up for examinations at the proper time is called "hossing."

It has often been a matter of surprise that so few

men, comparatively speaking, of those who take high honours in the University of London are heard of afterwards—"hossing" explains it all.

If A. takes two or three years longer to graduate than B., who entered at the same time, A. must be a fool if he cannot, *cæteris paribus*, learn far more in six or seven years than B. can in four; no wonder A. takes a first-class at the M.B. examination, and B. only a second-class, yet A. is not a better man than B., perhaps not so good.

Many more students would graduate in London than is at present the custom, but they cannot afford to "hoss," so they go off to Edinburgh for their degrees, if their strength be unequal to the exertion of reading for the Colleges and the University at the same time.

Our proposal is as follows:—Let the Colleges unite with the University for examining purposes, and let there be five examinations for the College diplomas, as well as for the University degrees, but at the end of the examinations let the pass men be only L.R.C.P. and M.R.C.S., while their superiors would be M.B. and B.S., with or without honours, according to their position.

Let the plan be adopted which is already in vogue at the University Matriculation Examination—set easy questions and difficult questions in the same paper; let those who obtain 20 per cent of the marks pass for the Colleges, those who get 40 per cent for the University; let 60 per cent confer third-class honours; 61 to 75 per cent, second-class; above 75 per cent, first-class.

A man should be passed if the average of all his papers gives him 20 per cent; for it seems very hard

that a man should be plucked because he gets only 15 per cent in a subject which he hates, while he may have been awarded 70 or 80 per cent in one that he likes.

The subjects of the several examinations we would thus arrange :—

1*st* examination, at the beginning of the student's first year, as at present; but we would allow him, if plucked, to go up again in three months instead of six.

Subjects—Latin, Greek, Mathematics, French, *and* German, instead of French *or* German, for most men take French, but German is equally necessary nowadays. The Greek and Latin Composition to be improved, but the Natural Philosophy and Chemistry to be left till the next examination.

2*nd* examination, as at present, at the end of the year.

Subjects—Botany, Natural Philosophy, Chemistry (Organic and Inorganic), Materia Medica, and Pharmacy, as distinct from Therapeutics. It is better to have done with chemistry altogether than to leave half of it, organic chemistry, to another year as at present. Natural philosophy, also, should be confined to this examination, instead of being divided between this and matriculation. Materia medica seems to be joined more naturally with organic chemistry and botany than with any other subjects; and as all of these occur in the first-year lectures, the student's memory would not be taxed so much as at present, for he has now to pass examinations in them one or two years after attending the lectures.

3*rd* examination, as at present, at the end of the second year.

Subjects—Anatomy, Physiology, and Zoology.

These three sciences are inseparable, and would make a far better combination than the present one—anatomy, organic chemistry, physiology, and materia medica.

4th examination, at the end of the third year, new.

Subjects—Pathology and Therapeutics, the latter including Dietetics, Hygiène, and Climatology. This would be a new examination with some subjects removed from the 4th and 5th, making both of them easier to read for.

5th examination, as at present, at the end of the fourth year.

Subjects—Systematic and Clinical Medicine, Surgery, Obstetric Medicine, and Medical Jurisprudence, including Insanity. This should be the final examination for the degrees of Bachelor of Medicine and Bachelor of Surgery simultaneously, instead of making the B.S. come after the M.B. has been passed, which seems as if the latter were the inferior degree.

Of course the pass men would become only L.R.C.P. and M.R.C.S. after all this.

6th examination, for graduates only, as at present.

For first-class men at the end of the fifth year.

For second-class men at the end of the sixth year. Those who wished to be pure physicians would go up for the degree of Doctor of Medicine, those who wished to be pure surgeons for the degree of Doctor of Surgery. The degree of Master of Surgery, M.S., might be abolished, for it is an unsatisfactory title; eminent surgeons have as much right as eminent physicians to be considered *doctors—i.e.*, learned enough to *teach* their art.

Very few would take these, the highest degrees;

most men would be content with the degrees of M.B. and B.S.

* * * * *

There is a common error which requires correction: most people imagine University College in Gower Street and the University of London to be identical. This is quite a mistake; the University is at present in Burlington House, Piccadilly.

You meet a nice girl at a friend's house, perhaps you are introduced as "Mr A., student of medicine, like your brother, Miss B.," and she instantly inquires to what hospital you belong.

We will suppose you a Guy's man, so you announce the fact with pleasure, for Guy's is a stately hospital, like a college, with its cosy quads. and cloisters, and fine trees in the midst of the houses. "Oh! you should be at the University, like my brother Charlie, and clerk for Jenner," says the disparaging fair one. You know all the time that she has made a mistake, but you feel immensely disgusted at it, for your dear old Guy's is a magnificent place, with five hundred and fifty beds, and owns estates worth forty thousand a-year, while University College Hospital you rather unreasonably despise, because it has less than one hundred and fifty beds, and is continually in debt. Then the idea of calling it *the University!* Perhaps you have just taken honours at the "first M.B." examination, and are perfectly aware that "Charlie's" name was not found, even in the pass list. "Confound his impudence!" No, you mean, "pity her ignorance;" so you presently enlighten her darkness by informing her that *University College* is a joint-stock *company* paying 6 per cent, while the *University of London* is established as a

university by a charter as royal as those which founded Oxford and Cambridge!

The way in which the confusion arose is thus explained by Miss Martineau, in her 'History of the Peace.' In 1826 a party, who believed that the home and university plan of education which prevails in Scotland was much better than the college and university education of Oxford or Cambridge, made Lord Brougham and Mr Charles Knight their spokesmen, and declared they would have a university within reach of their own fireside.

A joint-stock company was formed, and the place in Gower Street was opened for business, under the name of the "London University," on October 1, 1828, one prominent feature of its prospectus being that religious differences were ignored, and all sects were admitted, even "Jews, Turks, infidels, and heretics," as the wits of the day did not fail to remark. Sydney Smith said, "Ah! they may call it a *university*, but it will be only a *grammar-shop!*" Theodore Hook dubbed the place "Stinkomalee;" and "Thomas Ingoldsby," then in the height of his popularity, satirised it with his usual vivacity. A portion of one of his squibs may be given as it is so amusing: it is a parody on a song in the "Rovers," a lampoon in the 'Anti-Jacobin' for June 4th and 11th, 1798. The 'Anti-Jacobin' was to the "Sans-culottes" of the period what the 'Owl' is to our modern "Radicals," and the "Rovers" was a mock drama by Canning and Mr J. H. Frere, which ridiculed the extravagances of opinion and style in vogue with Continental democrats. Rogero, one of these, bemoans his hard lot in prison thus:—

"Whene'er with haggard eyes I view
This dungeon that I'm rotting in,
I think of those companions true
Who studied with me at the U-
-niversity of Gottingen.
-niversity of Gottingen.

* * * * *

"There first for thee my passion grew,
Sweet, sweet Matilda Pottingen!
Thou wast the daughter of my tu-
-tor, Law Professor at the U-
-niversity of Gottingen,
-niversity of Gottingen."

It is necessary to quote so much of the song, in order properly to appreciate the parody, which runs thus:—

"Whene'er with pitying eyes I view
Each operative sot in town,
I smile to think how wondrous few
Get drunk who study at the U-
-niversity we've got in town,
-niversity we've got in town.

"What precious fools the people grew,
Their *Alma Mater* not in town;
The useful classes hardly knew
Four was composed of two and two,
Until they learned it at the U-
-niversity we've got in town,
-niversity we've got in town.

Then comes a long list of the lecturers, of which the last are these:—

"There's Jerry Bentham and his crew,
Names ne'er to be forgot in town;
In swarms like Banquo's long is-sue,
Turk, Papist, infidel, and Jew,
Come trooping on to join the U-
-niversity we've got in town,
-niversity we've got in town.

"To crown the whole with triple queue—
Another such there's not in town—
Twitching his restless nose askew,
Behold tremendous Harry Brough-
-am! Law Professor at the U-
-niversity we've got in town,
-niversity we've got in town."

However, the self-styled "London University" was not to be laughed down; it grew and prospered, and the prospect of its being a successful undertaking so shocked a number of excellent people, who believed no education could be complete without religious instruction, that they soon (1828) started an opposition joint-stock company (which also now pays 6 per cent) to train youth in the principles of the Church of England, and called their place "King's College," because the King (George IV.) took great interest in it, and Government granted the east wing of Somerset House in the Strand for the use of the orthodox institution.

But the "London University" now claimed to give degrees as well as instruction to its heterogeneous alumni, and petitioned the Governments of Lord Grey and Lord Melbourne for the grant of a charter.

The grounds for conceding this were examined by the Privy Council, but no steps were taken in the matter, as considerable opposition was raised; for people said, "If the London University be empowered to grant degrees, King's College will be wanting the same privilege; and since it is as respectable as the other, how can it be refused? Then we should have two universities in England and two in London! Absurd!"

Next came Oxford and Cambridge, who petitioned against permission being given to the "London University" to grant degrees of the same denomination as

those of the ancient universities; not objecting to the charter, but desiring to retain to themselves titles which should prove that those who bore them belonged to the Established Church, and to Oxford or Cambridge.

In Sir Robert Peel's "Three Months' Administration" (Dec. 9, 1834, to April 8, 1835), the Ministry received several defeats at the end of March 1835—one being on the question of the London University Charter. "1835, March 26.—The motion on the present occasion was for an address to the King, beseeching him to grant such a charter to the London University as was approved by the law officers of the Crown in 1831, and containing no other restriction than against degrees in divinity and medicine. The proposers said their reason for bringing forward this motion now was, that they had no longer the hope which existed in the days of Lord Melbourne's Government of the admission of dissenters to the old universities; and if such admission could not be obtained, they must seek for justice in the social career by acquiring such privileges as could be had for the one university open to them." The Government brought in an amendment, which was negatived by 246 to 136. The address received a gracious reply from the King (William IV.); but for months after Lord Melbourne's return to power, in April 1835, nothing more was heard of the matter.

In August 1836 the Government made a proposal which was at once accepted by all who were concerned in the "London University." "That a body of men of science and scholarship should be incorporated by charter in London, to examine and confer degrees in Arts, Law, and Medicine" (still no Divinity, be it

observed) "on students educated at the institution in question, and others to be afterwards recognised."

On November 28, 1836, two charters were granted, one to constitute the educational establishment hitherto called "the London University" into "University College, London," the other creating the present "University of London." But as they were established during "royal will and pleasure," the proceeding was imperfect; so Queen Victoria revoked the charters in the first year of her reign, and on December 5, 1837, granted new ones, conferring the privileges without reservation. This being the case, it is a great pity that University College was not called "Queen's College," in honour of the monarch who granted the first charter of stability, for "University College" sounds like an incongruity, and misleads people.

This, therefore, is the origin of the "University of London," which is governed by a Senate (presided over by a chancellor, at present Earl Granville), the members of which are appointed by the Crown, some of them absolutely, while the rest are elected by the convocation of graduates and submitted to the Home Secretary for approval.

It still has important wants unsatisfied; for instance, it needs a building of its own, instead of sharing Burlington House with the Royal Society, and representation in Parliament, which has been already proposed for it by Lord Russell's two abortive Reform Bills, of 1854 and 1866.

The Redistribution Bill of the latter measure did not please the graduates, — it promised them only one member; so they held a meeting on March 21, 1866, and determined to petition for two representatives, one

of whom was to watch over the interests of the medical profession.

The Senate is continually affiliating some fresh educational establishment, and plucks about one-third of all candidates at preliminary examinations, but still says, "Oh, the regulations are still in their infancy!" With such modesty as this, after doing so much for "arts" examinations, who can doubt that it will have the most brilliant future in medicine and science also, when it has obtained the monopoly in London of conferring diplomas upon medical students?

Reader, will you assist in the accomplishment of this object if you have an opportunity? We ask you to say a word in season only "if you have an opportunity," for we do not wish to make either ourselves or you a nuisance to all our friends, as those people are who have hobbies and ride them to death.

The alterations proposed would improve the attainments of the bulk of the profession, and consequently the reputation of us students, who feel as keenly as any other members of society that, in the words of Iago,

> "Good name in man and woman, dear my lord,
> Is the immediate jewel of their souls." *

If we have vindicated our character—if this account of the "Medical Students of the Period" convince our readers we are no worse than any other class of students, we shall feel that these pages have not been written in vain. In this hope we bid you, kind reader, farewell!

* Othello, act iii. scene 3, lines 156, 157. "Cambridge" Shakespeare.

THE END.

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